

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, JANUARY 29, 1881.

ORIGINAL COMMUNICATIONS.

FACTS IN REGARD TO THE SWEDISH MOVEMENT-CURE.

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(Revised, and read before the Philadelphia County Medical Society, November 24, 1880, by BENJAMIN LEE, A.M., M.D.)

IT is well known to all who have read the history of medicine that the Eastern populations of the ancient world employed movements as a curative means, and that the Greeks and Romans, later, extensively applied them as medical agencies, but that with the decay of those peoples their excellent therapeutics were forgotten. If any fault can be found with their modes of exercise, it is that they looked more to the simple development of the muscles than to the regulation of the treatment in accordance with physiological laws. Still, we must confess that the *agônistics* of the Greeks were of value, and have furnished a good basis for the further development of the system.

Although the people of Europe subsequently employed remedial movements, the practice degenerated still more into mere muscle-culture and military drill.

During after-ages medical science passed through many variations, one pretender after another lauding his particular plan which proposed to cure every ailment of the human body. Most of them directed their experiments to the chemical processes of the system, forgetful of the fact that vital phenomena are complex and not confined to one form of force alone.

To a Swede, Peter Henry Ling (1776-1839), is due the honor of having first practically recognized the truth that the movements of the body were based upon physiological laws and produced physiological effects. He considered that inasmuch as vital phenomena were threefold,—the dynamical (manifestations of the mind and will and moral and intellectual powers), the chemical (assimilation, secretion, etc.), and the mechanical (respiration, mastication, circulation, etc.),—the means to modify them ought to include more than the mere chemical agencies. For that reason he devoted himself to the study of the

mechanical, not forgetting, however, the dynamical and chemical agencies.

"As our organization," he says, "cannot be complete without the union and harmony of these three orders of phenomena, it follows that this harmony must be health, and an inharmonious relation between them must constitute disease.

"When this harmony is deranged, in order to re-establish it we should endeavor to increase the vital activity of those organs whose functions have a relation to that order of phenomena whose manifestations are decreased or weakened."

Entertaining these physiological views, and fully acquainted with the mechanical treatment of the Greeks and Romans, he considered a knowledge of anatomy necessary for the gymnast, as his own words will show. "Anatomy," he says, "that sacred genesis which shows us the masterpiece of the Creator, and which teaches us at once how little and how great man is, ought to be the constant study of the gymnast. But we ought not to consider the organs of the body as the lifeless forms of a mechanical mass, but as the living, active instruments of the soul which animates the body in every part."

Ling never acknowledged a gymnastic movement to be beneficial until he was able to give an exact account of its effect.

For that reason he held anatomy and physiology as the basis of curative gymnastics, but did not consider an acquaintance with those and other natural sciences sufficient for the gymnast, whose aim should be the elevation of man both in his corporeal and his mental nature. To know the effects of movements upon both the physical and the psychological condition of man was necessary, and this could only be obtained by an exact study of the human being as a whole, on the one hand, and by an analysis of the details of his nature on the other.

After a long period of study and patient labor, Ling succeeded at last in making his new ideas recognized, and the first "Institution for Educational, Military, and Medical Gymnastics" was established in Stockholm at the expense of the Swedish nation. Before he died he had the satisfaction of seeing his mode of treatment enthusiastically appreciated by Sweden and introduced into other countries in Europe.

In accordance with his views, it was

enacted by the Swedish Diet (Congress) that candidates for graduation in the Movement-Cure should be examined in anatomy, physiology, hygiene, the science of human mechanics, pathology, diagnosis, and the principles of the Movement-Cure, and that no one should be accepted as a pupil without passing the "Examination of Maturity," which requires a course of seven years' study, and includes higher mathematics, logarithms, Latin (five years), French, German, English or Greek, ancient and modern history, physics, and chemistry. [I desire to call especial attention to the qualifications demanded of a student of the Movement-Cure in Sweden, and insisted on in good faith, as compared with those required of a student of medicine in this country.—B. L.]

Since 1813, when the Gymnastic Central Institution was first opened, there have been graduates each year, besides medical candidates and physicians from Sweden and foreign countries who study only such branches as are a specialty of the Movement-Cure.

Leaving this short history of the development of the Movement-Cure, I now proceed to define its principles somewhat in detail.

Physical life is dependent on certain distinct processes, such as digestion, respiration, circulation, etc. These processes of life are connected with certain organs; these organs are formed of tissues, and these tissues of cells. Perfect digestion, respiration, circulation, and nervous action take place as long as these organs, tissues, and cells are normal or healthy, and these organs remain healthy as long as nutrition is normal. Hence health is normal nutrition. But if health is normal nutrition, then must abnormal nutrition be the state which is called disease. Abnormal nutrition may decrease until it ceases, when death follows. Hence death is the cessation of nutrition.

With these ideas as a basis, let us try to understand the state of the body in disease. If disease is an abnormal nutrition, this must be owing to the existence of some derangement in the cells or in the tissues, even though it may escape detection.

As anatomy and physiology teach us the condition and the vital functions of our body in a state of health, so do pathological anatomy and pathology teach us the state of the system in disease. That these mor-

bid changes first appear in the cells is now a generally accepted idea; and the results of long practice of the Movement-Cure have shown that if the cells are looked upon as either relaxed or contracted, and the movements directed according to one or the other of these views, many diseased conditions in which chemical treatment alone had been found powerless have been cured or prevented, the chemical and dynamical agencies having been taken into proper consideration. I mentioned before that, according to Ling, health was the harmonious union of the three vital phenomena,—the dynamical, the chemical, and the mechanical. Is this opposed to the opinion that health is normal nutrition? Not at all; for is not normal nutrition the co-operation of the dynamical (nervous power), mechanical (circulation), and chemical (nutritive exchange) phenomena? Hence it is evident that in a diseased state of the system we must try not only to correct that one of these phenomena which gives evidence of disturbance, but to restore all the organs whose functions have a relation to that order of phenomena whose manifestations are either intensified or diminished. The question then arises, What means does the Movement-Cure employ to promote a better nutrition and improve the condition of the cells?

Substances introduced into the body for its nutrition quickly make their way to its most superficial portions, and, while the chemical agencies play an important part in preparing the food for assimilation, the mechanical agencies are not less essential in conveying it to its destination. Are the vessels, in fact, anything but mechanical tubes for the passage of the fluids?

We see plainly that noxious influences of a physical character act from the surface of the body towards the centre. Cold is an external, injurious influence of the air which primarily affects the vessels of the skin and the pituitary membrane, but is very soon transferred to the chest, stomach, or other internal organs. A heavy blow on the chest or head may cause unconsciousness, syncope, collapse, and even death. Whereas if the effect of a mechanical impression did not extend to distant parts, only that which immediately received the impression should be injured or destroyed.

All that we find in our organism, whether

as a part of it or as foreign matter, must at a given moment of time have a fixed volume. Every displacement of any one part, therefore, implies a corresponding change in neighboring parts, propagated to the remotest parts, according to the extent of the primary action. Every little change of attitude, or of the relation of the members of the body to one another,—an external pressure upon a nerve, vein, muscle, or tendon,—must necessarily produce a displacement of neighboring parts and propagate the action more or less strongly into sensitive organs in the proportion of their distance and its intensity, the effect gradually diminishing, like wave-circles on the surface of water.

If, now, this pressure is applied on the largest part of a nerve, vein, etc., according to the force of the impression, the displacement must be larger which is experienced in every blow or external force directed to elastic parts; inelastic tissues receive the first momentum of the force and are destroyed, all their particles being opposed to the force in the same instant of time. Experience shows that a very slight pressure upon a nerve irritates it, that a stronger pressure produces pain, and a still stronger, engorgement and finally paralysis.

Again, we know that we sleep better if we assume a certain position, according to our individuality. What does this indicate, if not the influence of mechanical impressions upon internal organs?

In treatment by the Movement-Cure the position of the patient is the first thing to be observed. The positions most used are standing, kneeling, sitting, lying, half-lying, etc., and in every one of them the trunk or the extremities can be moved in different directions. If we consider each one of these attitudes, we shall find that we are able to place the different parts of the body in an extended, contracted, or passive position. We have many opportunities in daily life to observe the effect of a position. For instance, when the hands are red and heated, if we stretch them upward we find the extended veins emptied and the skin growing pale. The importance of position in procuring sleep is well known. If we further observe the attitude of invalids, we shall find that they, without knowledge of the physiological effects of the positions, always hold and carry themselves so as to get partial relief from pain.

The various kinds of Movements, which we call *Passive*, *Active*, and *Duplicated*, can be administered to the body in every one of the above positions, and hence it is evident that the variations are numerous, and that each may have its special curative effect.

By *Passive Movements* I mean here the exertion of a compressing or extending force from an external source upon the organs of a human body, such as kneading, clapping, fulling, vibrations, and pressing on nerves. The effect of these is to cause the stagnant contents of the vessels to move forward, giving place for a new supply of blood, since the valves of the veins prevent the removed blood from flowing back. The new supply of blood increases chemical action, and the immediate effect is to remove pain, soreness, swelling, redness, and heat, and to equalize the circulation and soothe irritation. These effects are produced without any exertion on the part of the patient, who, on the contrary, receives from the operation a strengthening influence diffused throughout the nervous system, giving new vigor to all the organic manifestations.

It is quite possible to observe the immediate effect of a passive movement by stroking a visible venous trunk either against or in the direction of its current. The first action prevents the onward flow, and the vein becomes very prominent. The second accelerates the blood towards the heart, and the vein dwindles away. The tissues of the body being elastic, it is evident that internal organs can be subjected to the same operation.

As labor is the lot of man, it seems but natural that all the organs of the body should be so constructed as to need a certain amount of exercise; and we are not surprised that experience shows us that too little as well as too much activity is injurious.

Among the organs of our body many are under constant work, as, for example, the heart, the blood-vessels, and the lungs, with their nerves; but a still greater part of our organism—the skeleton, with its ligaments, and the muscular mass, with its nerves—can be moved only by means of the will.

As the muscles form so great a part of the body, it must be important to take them into consideration, for the object not only of preserving health, but also of restoring deranged functions.

If a movement is made by the will and force of the patient, it is called an *active* movement; and if the patient has to overcome the resistance of one or several assistants, it is called a *duplicated* movement.

Now, if we analyze a muscular movement we shall find that three different processes—mechanical, physiological, and chemical—are its evident result. In active and duplicated movements the muscles are alternately contracted and relaxed, and the veins and lymphatic vessels which lie beneath the swelling muscle are compressed. Thus, during contraction the blood is forced from one valve to another towards the heart. When the muscles are relaxed the vessels refill, and are anew compressed by the frequently-recurring pressure of the muscles upon their trunks, thus forcing the blood forward.

Under the use of properly-directed movements the patient is instructed to perform deep inspirations during the muscular contractions, with proportionate expirations. This pump-like motion of the respiratory muscles draws the blood from the veins into the chest in order to supply the vacuum thus created.

But it is not only the muscles which experience the benefit of movements. In nearly every muscular movement some joint is moved, and the extension or compression of its ligaments and cartilages and membranes must provoke a better circulation in those parts. It can be proven by dissection that in those who perform bodily work not only are the muscles more voluminous, but the bones and tendons are more fully developed, than in inactive persons. Exercise, therefore, provokes circulation in all parts of the body which are put in motion. Further, as every muscular movement is performed by the will, it must be evident that the nerves have some share in movements, as the impulse to move a part of our body must be carried from the brain through the spinal cord and the motor nerves to the extremities and surface. Hence muscular movement at the same time that it promotes circulation also provokes nervous flow. This increased nervous action and chemical exchange are only in the motor nerves; but I think that muscular movement can be shown to have also an indirect influence upon the sympathetic and the sensory nerves. A muscular movement has also its chemical effect, as is well proven by physiological

experiments. When a muscle contracts, heat is produced; and this heat has actually been measured to the extent of several degrees. If muscular exercise is continued for a considerable length of time, the person himself becomes conscious of an increased temperature, and as a final result perspiration sets in. This heat is the sequel of increased chemical exchanges in parts which are in motion. The muscular movement promoting blood-circulation produces an exchange of the solids and of the fluids of the body, and carbonic acid, lactic acid, etc., are formed, which, if accumulated in the muscle, produce the state which is called weariness. This weariness will disappear, however, when the above-mentioned products are absorbed by the vessels.

The materials thus consumed by exercise must be restored to the system, and the arterial blood, forced forward by the contraction of the walls of the heart, by the contractility of the arteries, and by the peculiar action of the capillary vessels, furnishes this needed supply. The amount of the blood cannot be diminished if the system is to remain healthy. Thus a new supply of nutriment for the blood is required from the digestive organs. This is absorbed by means of the lacteals; whence an increased appetite is the result of movement, as we knew by experience before physiological laws were written.

The chyle is not fit for nutrition, and for that reason it passes through glands where the matter is partially changed before it is emptied into the vena cava to mix with blood on its way to the heart, and still farther on to the lungs, in order to become oxygenated by contact with the air. Hence another effect of muscular movement is increased respiration from reflex action, produced by the impression of venous blood upon the nerves in the lungs. The exchanged noxious matters must be thrown out of the system, and this is partially done by the lungs, which secrete carbonic acid and water. Other noxious matters are separated by the kidneys and the skin. Thus muscular action produces increased activity in all the organs which are concerned in the great process of nutrition. *Duplicated Movements* are the most important, and their curative effect is dependent on *localization*, on the *amount of force* which is used, and on the *time* during which the movement is made. They are *concentric* or *eccentric* accord-

ing as the muscles are contracted or extended during the movement. The effect will be, in the one case to relieve organs suffering from congestion by sending the surplus blood away; in the other, to supply the part acted on with new nutritive blood. The prescription of either of these forms of movements is dependent on the condition of the cells.

By *localization* the effect of a movement is confined to a particular region, or to a separate organ of the body, while the other parts are at rest.

By a judiciously adapted resistance the strength of the patient is equalized with that of the assistant. The patient is pleased to find power of motion where it was previously impossible, and the energies of the system are aroused and encouraged by never allowing the patient to feel that his force is not sufficient to overcome that of the assistant.

The time which a movement occupies, which we designate the *rhythm*, is dependent on the individuality of the patient. The duplicated movements are in general slower than active exercises, giving all the fibrils or elements of the muscle time to participate.

Considering the few hints thus given in regard to the direction of movements according to physiological laws, it will be easily understood that no one without a special education is fitted to give, still less able to prescribe, movements for the cure of diseases, as is so often attempted in this country. No wonder that so many have tried so-called Swedish Movements without benefit, when inexperienced and uneducated manipulators are sent round to rub according to their own crude ideas. It is an indisputable fact that Movements and Massage, which are most important means for regulating the blood-circulation, if applied in opposition to physiological laws will attract the blood to a part already congested or inflamed, and the evil will be aggravated just as surely as if a wrong medicine had been administered.

Though the system is called Movement-Cure, restraint from active exercise is very often necessary. [This brief sentence, I beg leave to remark, contains in a nutshell the *rationale* of that system of treatment which has been fashionable in this city for the past few years under the misleading title of Rest-Cure. The *Rest-Cure* is, in point of fact, the *Movement-Cure*, the rest being merely a more or less neces-

sary accompaniment. Supineness and stuffing are not curative in themselves or by themselves. Movements and Massage are; and Movements and Massage are an essential feature of the Rest-Cure.—B. L.] Great regularity in regard to the treatment, as well as strict attention to the prescribed diet and hygienic rules, is necessary in order to receive the full benefit of the cure. This mode of treatment has a great advantage over other therapeutic methods, from the fact that the patients are always benefited, even if it is impossible to make a complete cure, because the treatment removes pain, congestion, and local swelling, invigorates the muscles and the nerves, causes the lungs to act more freely, regulates the digestion and the blood-circulation, and, in a word, stimulates all the organs to perform their functions without introducing any irritating or toxic agent into the system. What is gained is obtained in nature's own way, by directing the fluids of the body through their natural channels with natural celerity. It is for this reason that disturbed capillary action, and all resulting disorders of the circulation, such as cold hands and feet, rheumatic affections, with their sequelæ of weakness and lameness, hemorrhoidal tumors, disorders of menstruation, and all the different symptoms of disordered digestion (dyspepsia, constipation, flatulence), are among the complaints which most easily yield to this mode of treatment, and that in them a favorable prognosis can always be risked.

In regard to curvature of the spine, if it be dependent upon weakness of the muscles, which are unable to keep the spinal column erect, it is always possible to correct the curvature in from two to six months if the treatment begins before any change has taken place in the vertebræ. In the latter case the Movements will erect the spine partially and stop the further development of the disease by restoring the general health of the patient. It must be the physician's first endeavor to attend to the general health and the causes which have brought on the curvature. That scientific movements must be a powerful means of restoration in this class of cases must be evident to every one, since, whether muscles be on the extremities or on the trunk, exercise must have the same effect on them.

In convalescence after fevers and other acute diseases the Swedish Movements have

been of great benefit in restoring the functions of the system. It must be observed that it is not the primitive disease, but the sequel of it, which is treated in such instances.

Neither excessive weakness nor great age forbids the treatment, as the passive movements are administered without any exertion on the part of the patient. During the seventy years' history of this practice in Europe it has been demonstrated that the aged, by using the treatment a short time once a year, may be rendered to a great extent free from the ailments so common during the latter part of human life.

A cure in ordinary cases of functional disturbance is attained by a treatment of from one to three months' duration, but in higher degrees of curvature of the spine (yet curable), and in constitutional diseases, a course of from four to six months, or longer, is necessary.

The treatment should be administered every day (Sundays excepted). The time required daily is from one to two hours, according to the character of the disease and the condition of the patient.

When we consider that the Movement-Cure affects the most important functions, such as absorption, assimilation, and nutrition, and that these never cease to act as long as the system is in health, it will be easily understood why treatment every day is necessary if good results are to be obtained. Cases occur, indeed, where treatment several times a day would have a much better effect.

I have so far treated of the effect of movement in a general way. Allow me now, by way of example, to contrast the treatment of that most prevalent disease, constipation, by Movements and by medication.

By constipation I mean here that state of the body in which the evacuations are less frequent or less in quantity than in a perfect state of health, and the discharges generally hard and procured with difficulty. The symptoms are, further, variable appetite, acid stomach, headache, cold hands and feet, and, in protracted cases, when large fecal masses are collected in the rectum, pain in the sciatic nerve and difficulty in urinating.

The causes are indigestible food, sedentary habits, the protracted use of astringent, diuretic, and purgative medicines, mental anxiety, chlorosis, diseases of the spinal

cord, weakness of the muscular coat of the intestines and of the abdominal muscles.

The liver is torpid and congested. The alimentary mucous membrane is to some extent congested, whence results deficiency of the required secretions. Now, if the due amount of blood can be brought back to the tissues and the other injurious causes removed, the constipation must yield. I desire to show that the Movement-Cure operates against all these causes.

As before mentioned, no medicines are used, whence this cause of disturbance is avoided. Proper diet is prescribed, and the Movements break up sedentary habits; mental excitement is diminished by directing the treatment so as to draw the nervous fund from the brain and rouse to action the lower portion of the spinal cord by exercising the muscles which get their nervous supply from this part. The liver and the accumulation of fecal matter are directly operated on by kneading, vibration, and circular stroking (following the course of the colon), which movement removes congestion and promotes fecal discharges by exciting muscular contractility in the alimentary tube. The respiratory organs are operated on for better oxidation of the blood, which, further, ought to be diverted to the extremities for a wholesome distribution of the circulation. The most obstinate case of constipation rarely fails to yield to a course of this kind persisted in for a few weeks.

Let us now consider the effect of medication in this condition. The drugs introduced into the alimentary canal irritate its nerves, as every substance will which does not consist simply of digestible food. The homogeneous contents of the intestinal tube are mixed with the drug, and the offended absorbent vessels thereupon refuse to perform their functions; hence absorption and nutrition are diminished.

Some portion of the toxic agent is absorbed into the blood, but, passing through the liver, the greater part of it is mixed with serum drawn from the blood, thus enfeebling the nutritive supply of the body, and then returned to the canal.

The mass in the alimentary tube is now acted upon by the emunctories with great power as the nerves are further irritated, and, only partly digested, is forced out of the tube, nature's only way to escape from impending harm.

It is true the alimentary tube has been

emptied for the time by directing the remedy against the most prominent symptoms, as medicine in general is directed; but we see plainly that nothing has been done to remedy the true cause of constipation, and in a very short time after the operation of the purgative the difficulty exists in a greater degree than before.

In the unpromising field of cardiac disease the Swedish Movements have effected some of their most surprising results. The following brief explanation may convey to the profession an idea of the treatment in this class of cases, and the mode in which it is beneficial.

Diseases affecting the heart we naturally divide into two classes, nervous and organic. The nervous affections of the heart are mostly connected with other derangements of the system, as asthenia, chlorosis, diseases of the digestive organs, and pelvic disorders, and are more or less curable in accordance with the curability of the primary cause.

The organic diseases are of quite another character, and though most of them, if they have existed a long time, are incurable, still even in such cases it is possible to give the suffering invalid great relief.

The most common are diseases of the valves, hypertrophy, atrophy, and fatty degeneration. For our present purpose we may consider simply disease of the valves between the left auricle and ventricle, as being the most common. Whether insufficiency or stenosis, the symptoms, as well as the treatment, are very much alike.

In insufficiency of the mitral valve the blood, which ought to be squeezed out of the auricle, partly returns, and in stenosis the heart has not power enough to force the blood out, and a greater or less quantity remains in the cavity. In either case, therefore, the circulation is interfered with in much the same way, and stagnation of blood in the lungs, with shortness of breath, heart-palpitations, and a diminished quantity of blood in the arteries, is the result. The symptoms of the last are principally observed in parts distant from the heart, whence cold hands and feet. To correct this, the heart increases its activity, and this extra work may go on for a long time, the one fault correcting the other, before it is observed by the individual. But at last, as the heart is a muscle and obeys the general law of muscular tissue that too much exercise is in-

jurious, the active fibres become overworked and enfeebled, and the symptoms grow worse, with evidences of stagnation in the large venous circulation, as visible in the bluish complexion.

The functions of the organs nearest to the heart, as the liver, spleen, stomach, and kidneys, gradually become disturbed, and the patient is finally subjected to intense suffering from the accumulation of water in the tissues.

It will naturally be asked, How is it possible to help these sufferers by movements, when even so slight an exercise as walking only increases their discomfort? I answer, we must distinguish sharply between scientific movements and all other forms of exercise. As before observed, the heart endeavors by increased activity to distribute the blood through the system. This gives us a hint for treatment. We must diminish the irritation of the heart arising from the pressure of neighboring parts, and divert the blood to the different organs and distant parts of the body, thus diminishing its work and hence its tendency to abnormal nutrition and hypertrophy.

In the first place, irritation is diminished by keeping the spinal column erect by the due development of its muscles, thus expanding the chest and affording the heart all possible room.

Duplicated movements in attitudes of rest increase circulation, as well in the veins as in the arteries, in parts which are put in motion. The extremities are cold. Exercise of their muscles will therefore be useful. But if, in consequence of the weakness of the patient, these movements are unsuitable, rotations of the joints may be employed to increase the arterial circulation, and upward stroking of the extremities to accelerate the venous flow.

Vibration, kneading, and fulling aid both the circulatory systems. The circulation through the lungs may be assisted by respiratory movements, in connection with clapping and light vibration upon the chest. Passive applications over the abdominal organs will have a good effect in promoting circulation and absorption. The heart itself may be operated on by light clapping and vibration upon the chest, and its movements may be regulated by direct pressure upon either the vagus or the sympathetic nerve.

Whatever the form of disease, whether the power of the heart is diminished or in-

creased, the treatment in all cases ought to be, and unquestionably may be, so administered as to aid the circulation without exciting palpitation or stimulating the contractions of the heart.

In the treatment of patients with heart diseases, ill-instructed manipulators have inflicted much injury by using powerful active movements, and have thus brought the system into disrepute.

I mention this because I know how freely young men, and even children, in this country use gymnastic exercises without previous examination by a physician able to tell them the danger of strong active movements of the arms or trunk if they are afflicted with heart disease. Such cases are in Sweden sent to Movement-Cure institutions, and their records show many instances in which skilled diagnosis had pronounced the disease to be organic, and yet it subsequently appeared that the symptoms arose from weakness of the heart, or of some part of it, as they disappeared under the use of suitable movements.

During the year that I have been in this country I have been struck with the fact that so many sudden deaths occur from heart disease and apoplexy; but, knowing as I now do how gymnastic education is neglected or misapplied in the schools, and, further, having had opportunity to observe how narrow the chest is in most Americans, and how both men and women walk with the chest contracted and the back crooked, either from weakness or from habit, I no longer wonder. The most important organs in our body are thus kept under constant pressure. To prevent this it would seem to be high time to employ systematic movements, as well in public as in private schools, and thus complete education according to the idea of the great Plato. "A good education," he affirms, "is that which assures to the body all the beauty, all the perfection, of which it is capable."

"To secure this beauty, it is only necessary that the body should be developed with perfect symmetry from the earliest infancy.

"If exercise does not keep pace with the growth of the body, it becomes subject to I know not how many infirmities."

Pliny remarks, "The mind is stimulated by movements of the body," and Hoffman, that "we cannot perfect the art of healing till we learn to apply mechanics and hydraulics in medicine."

A CASE OF CHOKED DISK.

BY FREDERIC H. CARRIER, M.D.,

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FREDERICK McC., æt. 21, born in Philadelphia of illegitimate parentage, a farmer by occupation, was admitted to Wills Hospital August 18, 1880, under the care of Dr. Schell.

About two weeks previously he had been attacked by an erysipelatous swelling on the right side of the face, in the parotid region. This culminated, August 16, in an abscess directly over the condyle of the jaw. The abscess was poulticed and lanced the following day by his attending physician, and about one and a half ounces of pus were removed. He had taken internally the tinct. ferri chlor. Considerable constitutional disturbance had occurred at this time, and been made manifest by heat of skin, furred tongue, etc. He had suffered from intense pain in the right eye, and morphine sulphas, gr. $\frac{1}{2}$, hypodermically, had failed to give relief.

His condition at the time of his admission to the hospital, August 18, was as follows. The swelling prevented separation of the jaws beyond half an inch, and the inflammation had invaded the orbital region. The entire side of the face bore a dusky-red appearance, and pitted on pressure at some points near the margin of the scalp.

The right eye was closed by the swelling of the red and puffy lids, and bulged forward, projecting from the orbit about the size of an egg. No fluctuation could be discovered. There was severe pain in the ball, chemosis of the conjunctiva, and slight mucous discharge from the lids, which had commenced August 13.

This eye had been disabled since the age of twelve years, when the patient had suffered from a severe attack of measles. On referring to the hospital records, it was found that he had been an inmate of the house in July, 1879. He had been admitted at that time with central adherent leucoma, causing blindness, for the relief of which iridectomy had been performed by Dr. Schell, with the result of enabling the patient to count fingers at six inches.

In addition to the local symptoms previously mentioned as characterizing his condition at the time of his admission, August 18, 1880, he was feeble and tottering in gait, dull of hearing on the right side, slow of speech and comprehension, pale, and much emaciated. He had always stammered.

The local condition appeared to be that of orbital cellulitis, and he was ordered to bed and given potassium iodide, gr. xx, three times daily, and iced cloths were applied over the eye. His diet was necessarily fluid throughout the duration of his illness.

At the evening visit he complained so bitterly of the ice dressing that a warm flaxseed

poultice was substituted, and continued thereafter throughout the treatment. On August 20, the patient complained of being nervous and wakeful at night. He was ordered potassium bromide, gr. xxx, four times daily, and quiniæ sulphas, gr. iv, four times daily, and the potassium iodide was discontinued. Slight fluctuation having been detected, an incision one and a quarter inches in depth was made about a quarter of an inch anterior to the temporal artery and immediately above the zygomatic process of the temporal bone. A small quantity of sanious pus escaped. He was only permitted to rise from his bed when necessary during the first week.

August 21, the same treatment was continued, and another incision was made half an inch from and a little below the line of the external canthus. A few drachms of pus were evacuated, and a drainage-tube was inserted. The other two openings were probed at each dressing to favor the discharge as much as possible.

The patient seemed slow of comprehension and somewhat peculiar in his manner at this time, and disturbed the other patients by walking about the ward at night. He mentioned that there was a discharge of matter into his mouth, which he referred to the vicinity of the articulation of the jaw on the right side, but his teeth could not be separated sufficiently to permit an examination.

August 22, an abscess was opened in the upper lid. August 24, the drainage-tube was discontinued, no more pus being discharged. Beef-tea and milk-punch were ordered every four hours. He became very restless at night, but did not complain of any pain.

During the next few days the swelling of the face and lids gradually subsided. The patient appeared to be gaining strength, and was permitted to go about the ward and into the garden, but a certain lethargy and dullness were noticeable. He experienced some slight mental illusions, and annoyed the nurse, who slept near him, by asking in the night for anodynes, although quite free from pain.

August 28, slight wandering of the mind was noticed in the evening. August 29, potassium bromide discontinued. August 30, ordered ferri et potassii tartras, gr. v, thrice daily. Urine examined with negative result. Some hebetude noticed. September 1, tinct. ferri chloridum ordered, gtt. x, thrice daily. Ferri et potassii tartras discontinued, and quinine changed to two grains three times daily, instead of four grains four times daily. Abscess opened in lower lid. Patient very weak. September 8, patient drowsy, tongue dry. September 10, much hebetude, very dry tongue, jaws still closed by swelling. Pulse 60, receding; heart normal. Patient very weak; begins to refuse food.

The ophthalmoscope showed at this time a choked disk in the left eye; the top of the swollen nerve could be seen with $\frac{+}{16}$, al-

though the eye was emmetropic. The vitreous was slightly hazy, and there were some minute hazy spots in the cornea. There was apparent bulging of the bone in the right temporal region. He frequently passed his hand over this spot, but said he had no pain. The swelling of the lids and orbital cellular tissue was so much reduced at this time that the right eye could be seen, and had returned to its natural position in the orbit. Local symptoms all abated. His weakness compelled a resort to rectal alimentation with beef-tea and milk-punch. September 11, patient in a semi-comatose condition, skin bathed in cold sweat, urine passed involuntarily. Dr. Schell came prepared to trephine for pus in the right temporal region, but on consultation with other members of the hospital staff different measures were adopted. An examination of the head of the penis revealed a scar unmistakably syphilitic, and it was deemed advisable to mercurialize the patient at once. He was ordered hydrargyri chloridum mite, gr. $\frac{1}{4}$, every hour, and inunction by unguentum hydrargyri thrice daily. Ferrum dialysatum was substituted for tinct. ferri chloridum, and the quinia was omitted. The pulse was 52, very full,—a typical "brain" pulse. Left-sided paralysis came on during the night. September 12, patient quite comatose. Morning pulse, 106; evening pulse, 150. Death at 3 A.M. September 13.

At the autopsy, nine hours after death, rigor mortis was well established. Head only examined. The dura mater, where it was adherent to the middle fossa of the skull on the right side, showed some effects of inflammation. Three abscesses, one the size of an egg and two smaller ones, were found in the substance of the middle lobe of the brain on the right side. The largest abscess lay within three-eighths of an inch of the outer wall of the brain, and precisely opposite the point where the temporal bone had seemed to bulge and where the pressure of pus had been thought to be indicated before death. The smaller abscesses communicated with the larger, and all three lay close to the base of the brain, being separated from the bone by a thin stratum, perhaps not over one-eighth of an inch in thickness, of cortical tissue, which gave way in the removal of the organ from its natural position. After carefully dissecting the dura mater from its attachments to the middle fossa of the right side, pus was found oozing from the foramen ovale, and a probe pushed gently into the canal caused a small stream of pus to exude. It was found after close examination that the inflammation had passed along the sheath of the inferior maxillary nerve, from the original focus about the ramus of the lower jaw, through the foramen ovale to the brain.

The sheath of the optic nerve was apparently quite healthy. No pus was detected in the orbit.

There was no collection of serum in the sheaths of the optic nerves, the sheaths lying in close apposition to the nervous tissue.

It is evident that the inflammation in this case was of the type of phlegmonous erysipelas, although its steadily localized character and apparent indisposition to spread prevented its true nature from being recognized at the outset. The orbital cellular tissue was, however, fully affected at the date of his reception into the hospital, and had been in that condition for some time previous. Pus never formed in the orbit in such quantity that it could be detected by palpation, but it is very probable that the abscess, which pointed at the outer angle of the orbit, communicated with the orbital cavity, and that whatever pus was produced in the cavity found an exit by way of this abscess when it was opened. Although this could not be demonstrated by the probe, yet the facts that the exophthalmos subsided *pari passu* with the discharge from this point, and that similar terminations to orbital cellulitis are not unknown, give strength to the conclusion.

The inference that the inflammation had passed backward from the orbit to the brain and had there led to the formation of pus, though warranted by the symptoms during life, was proved to be incorrect by the post-mortem examination, in so far as the track which the disease had followed in its inroad upon the cerebrum was concerned. The peculiar route which the disease did follow was quite unanticipated, and, so far as the writer knows, unusual.

It is not known at what stage in the disease the choked disk made its appearance, as the early brain-symptoms, although recalled afterwards, were not at the time of their occurrence of sufficient gravity to attract attention. The fact that the man had always stammered was also to some extent misleading. As is well known, choked disk does not affect the acuity of vision, and, although the right eye was much impaired in its usefulness from previous disease, the vision of the left was as good as ever to the last.

It is worthy of remark that the patient was never known to have either a chill or a spasm of any kind throughout the duration of his illness.

STILLING, of Strasburg, thinks he has demonstrated a spinal root of the optic nerve.

COMPOUND COMMUNUTED FRACTURE OF THE SKULL.

Reported by HENRY M. WETHERILL, M.D.

ADMITTED to the surgical ward of the Pennsylvania Hospital, March 6, 1880, under care of Dr. William Hunt, Alexander L., æt. 34, married, laborer.

This man while unloading a vessel fell from the gang-plank which lay between the ship's side and the wharf, striking his head against the latter and falling into the water, from which he was rescued with difficulty and brought to the hospital.

On admission, the patient's condition was noted as follows. He is quite conscious, and converses rationally, not having symptoms of concussion or compression of the brain, but the respirations are shallow and hurried. Over the occipital bone, rather to the left of the median line, is a lacerated contused wound of the scalp two inches in length, including all the tissues to the skull. At the bottom of this wound is felt a depressed fracture of the skull, the depression extending laterally the entire length of the external wound, and the sharp, rough, fractured edge of the occipital bone. There is no bleeding from the ears; but when he coughs or swallows, a liquid resembling bloody serum flows from his nostrils. The conjunctivæ are reddened by effused blood. The pupils are quite normal and respond to light. The pulse is 120, and so weak as to be almost imperceptible. The respirations are shallow, jerky, 36 to the minute. Temperature 97° in the axilla. The external hemorrhage has been trifling, but there is considerable effusion of blood into and under the scalp covering the occipital bone, with great contusion. Careful inspection fails to show any other injury save a few slight contusions.

External warmth was applied, and hot beef-tea given internally. A cool water dressing was applied to the entire head. By the next morning he had rallied well from shock, and was conscious and rational. Respiration and deglutition much embarrassed, but rather less so than when admitted. He had retention of urine, which being drawn was found to be abundant and very pale, sp. gr. 1008, otherwise normal. He complained of constant but not severe headache. Pulse 90 and of fair strength. Ordered him potass. bromid., gr. xx t. d., and restricted liquid diet. Water dressing kept upon head.

Upon the 9th, four days after admission, his condition was about the same: respiration 30; temperature 98.5°. Paralysis of bladder continued, but bowels moved freely without medicine.

Upon the 12th, the pain in head had gone, but the respirations were still much embarrassed, 26 to the minute, temperature 99°. The wound looked well; no spiculæ of bone could be found, nor was there any hernia of cerebral

tissue. Bowels moved spontaneously. Condition of bladder continued. Wound dressed with lint soaked in carbolized oil. His general condition was quite good, and so remained until the 14th, when suddenly, about noon, he became worse, complaining of intense pain in the head, and within an hour the respirations became more rapid and shallow (34 to the minute), and he became quite unconscious; pulse 74, full, no stertor, but facial expression anxious; surface cool, face congested. The pupils, which up to this time had been normal, were now very irregular, sometimes contracted, sometimes dilated, and not acting in unison. Ordered warm pediluvium and friction of extremities with dry mustard, cold applications to head, and internally gave *ol. tigllii* gtt. ii, followed in four hours by enema containing soap and oil of turpentine. This failed to act. The patient did not return to a state of consciousness, but died in profound coma, death being apparently due to failure of respiration, eight hours after the change in his condition was observed.

Notes of the autopsy, made ten hours after death, as follows. Rigor well marked. The skull is abnormally thin, especially so in the depressions in calvarium for the reception of the Pacchionian bodies, which in this instance are large and numerous. The dura mater very firmly adherent to skull. Considerable amount of subarachnoid effusion, which is purulent. There is a large depressed fracture of all the tables of skull in the left side of occipital bone, from which springs a fissure running up to the temporal bone on the lateral sinus, with several small detached spiculæ of bone, some of which are imbedded in the cerebral substance. There is another fissure starting from this main depression and running into the foramen magnum. Another fissure starting from the same point and running into the torcular Herophili, at which point are two small spiculæ of the internal table. There is another large depressed fracture of all the tables, with great starring and splintering of inner table, found in the anterior cerebral fossa, fracturing and comminuting the entire roof of the right orbit, from which runs another fissure which crosses and involves both the right and left middle cerebral fossæ. The meninges are freely dissected up from the surface of the convolutions by purulent effusion, so that the convolutions can be readily freed from the membranes and exposed. The entire brain is very much congested; the *puncta vasculosa* being prominent. The lateral, third and fourth ventricles are distended with purulent, bloody serum, in which float shreds of recent inflammatory lymph. On the left side of the brain in the posterior cerebral lobe, corresponding to a large fissure in the skull, and about one-half inch below the cortical and within the medullary portion of the brain, is an abscess about the size of a walnut, containing about a fluidounce of thick,

greenish-yellow pus. The entire base of the skull was occupied by a mass of clot. The other organs were found to be in a normal state, and the bladder was empty.

The condition of the patient during the nine days following the accident afforded but little clue to the overwhelming damage done to the skull and its contents. The only apparent lesion was the depressed fracture of the occipital bone; and the reason that the trephine was not applied and the fragment elevated was that a somewhat shallow and hurried respiration was about the only symptom which the patient presented. It was fortunate that such was the case, as nothing beneficial could have resulted from its application. There was no decided paralysis, either of motion or sensation. The bladder did not act, but the bowels moved freely without medicine. This man was conscious, rational, and knew well the dangerous nature of his injury, expressing a hope that when he recovered his mental condition would be good, so that he could support his family. The expectant treatment was the only one to be thought of in such a case. The patient was not bled, he was not given calomel, he was not purged until the very last, when compression of brain became manifest, nor was his skull subjected to any surgical fumbling. At one time it was a question whether the respiration could not be improved by elevation of the depressed portion of occipital bone; but the application of force to one portion of this skull would have caused great pressure with probable laceration of the brain at many points. What killed this man? Apparently, embarrassed respiration; but there must have been a fresh cause, a new factor at work upon this ninth day.

The abscess, I think, cannot be looked to as precipitating the fatal result, as it was found to be quite circumscribed, the pus not having opened any ventricle.

The enormous blood-clot—which occupied the entire base of the skull, and which must have exerted great pressure upon the most delicate structures—would have proved fatal at an earlier day than the ninth; without, indeed, a fresh intracranial or intra-cerebral hemorrhage had occurred, which factor was absent, as the autopsy showed no signs of recent hemorrhage. It would be an error to state that any one factor was the cause of his sudden demise; but, given a brain sub-

jected to all the pressure and contusion compatible with the exercise of its functions, working along for eight days, plus a sudden effusion into all the ventricles upon the ninth day, result, sudden death, appears to be a reasonable hypothesis when we consider that in injuries of the brain, even of an extensive character, involving considerable inflammation, sometimes the effusion does not occur until after the lapse of five or six days; then, a rather sudden effusion pouring into or upon the cerebral tissues, a fatal result is precipitated.

1237 ARCH STREET.

TRANSLATIONS.

DIAGNOSIS BETWEEN CYSTITIS OF THE NECK OF THE BLADDER AND PROSTATITIS, AND BETWEEN THE LATTER AND COWPERITIS.—*Le Concours Médical* (1880, p. 532) gives the following from Fournier:

Cystitis.

1. Characteristic vesical tenesmus; frequent and imperious desire to urinate.

2. Micturition especially painful at the moment when the last drops of urine are passed.

3. Excretion of a dysenteric liquid, mixed with pus and blood, at the last moment of urination; pure blood sometimes passed.

4. Simple perineal sensibility; irradiating pains towards the anus, less violent than in prostatitis.

5. Prostate normal.

6. No retention of urine.

7. Few or no general symptoms.

Prostatitis.

1. Vesical tenesmus less marked; rectal tenesmus more noticeable; frequent urination not present.

3. Nothing of the kind observed.

4. Deep perineal pains (very severe, and increased on movement), defecation, etc.

5. To the rectal touch the prostatic tumor is perceptible; very tender, hard, etc.

6. Dysuria, retention of urine, etc.

7. General symptoms; fever, loss of appetite, etc., pretty well marked.

Cowperitis is sometimes very hard to distinguish from prostatitis, because the two glands are so near together, and this is especially the case when the disease is

somewhat advanced, the whole locality being swollen and phlegmonous. However, careful exploration will usually serve to distinguish the two affections. The passage of an acorn bougie will also serve to show the absence of pain in the neighborhood of the prostate. The course of cowperitis is also different. It shows itself as a phlegmonous tumor adherent to the bulb, limited to the point occupied by Cowper's glands, and having, at first, no connection with the canal of the urethra. The pus in cowperitis points very rapidly towards the perineum, and the vesical symptoms are so slight that some writers have denied the possibility of complete retention in cowperitis.

ANATOMICAL PREPARATIONS AT THE RECENT PARIS EXPOSITION.—A report by Prof. Haivion (*Jour. des Sci. Méd.*, November, 1880, p. 529) says that the exhibition of anatomical preparations for teaching purposes was very complete. Laskowski exhibited specimens injected through the arteries with glycerin and carbolic acid. These specimens preserved their size, flexibility, and color for six to eight months. They could easily be dissected, and are likely to be useful in summer and where cadavers are hard to procure. Prof. Marini, of Naples, exhibited (1) dry specimens having the property of reassuming their freshness and suppleness, with their natural color, when soaked in a special liquid; (2) preparations preserved in a permanently fresh condition; (3) a preparation in which the process of putrefaction had been arrested after twenty days; (4) a heart, having a penetrating wound two centimetres in size, preserving its fresh condition and natural color; (5) petrified specimens, obtained by a process which can be utilized for the preservation of entire bodies; (6) a foot and hand, in the dry state, of great historical interest, Prof. Nélaton having certified that the foot had been seen by him in the dry state in January, 1868, and when again seen, one month later, had resumed its soft and supple condition, so that he could dissect it in part. A similar certificate from Prof. Sappey, dated 1864, accompanies another specimen. This process may in time prove useful in medical teaching and in medical jurisprudence. Prof. Marini keeps his process a secret, having offered it to the Italian government upon terms which have not up to this time been accepted. Dr. Wywod-

zoff, of St. Petersburg, believes this process to be essentially the same as one which he himself has devised. He uses a peculiar apparatus with the following solution: thymol, 45 grains; water, 2 pints; glycerin, 4 pints. He considers this the best mixture for the injection of the entire cadaver, an extremity, or a viscus. Salicylic acid, he thinks, is as good for preserving the cadaver, but must be brought into immediate contact with every portion. The quantity of liquid necessary to embalm a body is nearly one-half its own weight. The cavities must not be opened; the injection must be made very slowly. To inject an extremity, the part should be dipped in hot water and the medullary cavities plugged. M. Wywodzoff gives also further details of his procedure and formula. Among the most interesting of the anatomical and pathological specimens are those models of skin diseases for which Baretta is so famous. He is the founder of the famous museum of the St. Louis Hospital, which now numbers 1100 specimens. Baretta makes a plaster cast of the part to be reproduced, and pours into this his peculiar composition, already colored in various shades so that its color is unchangeable. These models are of the greatest use in places where large skin clinics do not exist. They are sold for an average of fifty francs apiece, and a good collection of fifty is sufficient for teaching purposes.

NORMAL OSSIFICATION.—Kassowitz, in the first part of a work intended to include a study of the osseous system in health and in rachitis and hereditary syphilis, asserts that he believes he has been able to develop a uniform theory of the entire process of ossification which brings all the various peculiarities into unity and does violence to neither logic nor fact.

As to the question, of surgical interest, whether growth takes place by expansion or apposition, Kassowitz declares in favor of an invariable apposition process, regarding expansion as impossible. With regard to the formation of bone-substance, Kassowitz considers that the embryonal structures either develop directly from periosteum to bone or else first become cartilage. He thinks that non-vascularized tissue cannot develop bone. Cartilage is not developed in localities entirely protected from pressure and rubbing; nor is it ever found within firm, bony, diaphyseal tubes.

(This view is, however, contested by other observers.) Kassowitz regards the growth of cartilage as always interstitial. As to the resorption of bone, he says that the circulation of tissue "juice" about the blood-vessels hinders the deposit of lime-salts and dissolves the salts which have, under other circumstances, been deposited. He regards the giant cells of Kölliker and Wagner (Kölliker's osteoclasts) as products of change in great part of an originally compact fibrillar structure.—*Cbl. f. Chir.*, 1880, p. 762.

ABSORPTION BY THE URETHRAL AND VESICAL MUCOUS MEMBRANES.—According to Maas and Pinner (*Cbl. f. Chir.*, 1880, p. 773), repeated researches have been made during the past few years with the view of ascertaining whether the contents of the bladder diffuse with the fluids (blood, lymph, etc.) circulating in its walls. Kaupp found that water was most rapidly absorbed of the various contents of the bladder; urea, also, in considerable quantity; while contained chloride of sodium solution took up fluid from without. According to Wundt, this absorption of water is particularly marked during sweating. Other investigations confirm this. The absorption of poisons by the bladder was noticed by Ségalas and Orfila. Demarquay observed the absorption of iodine; Black, of mercury. Küss, Susini, Alling, and H. Thompson deny the resorptive capability of the vesical mucous membrane.

The consideration of these contradictory results of investigation led Maas and Pinner to experiment for themselves, with the following result. They found that in the healthy human bladder pilocarpin, and also iodine, to a certain physiological degree are absorbed. In catarrh of the bladder of a mild grade the capacity for absorption is increased. The healthy bladder of dogs and rabbits absorbs ferrocyanide of potassium and salicylic acid, as well as cyanide of potassium and strychnia, with considerable rapidity.

Artificial cystitis—excited by injections of turpentine—appears sometimes to hasten absorption, while at other times it delays it. Alling asserts that the reason why all researches into absorption by the bladder are positive in result is because the fluids are either absorbed by the urethral mucous membrane or find their way into the circulation through some abrasion in the

vesical mucous membrane. For this reason our authors cut off the urethral mucous membrane, by ligature at the neck of the bladder, and examined its resorptive faculty separately. They found that the urethral mucous membrane absorbs with great facility, so that the materials used were taken up as quickly as if they had been injected subcutaneously. The pars pendula appears to be most active in absorption: at least experiments upon a patient in whom the penis had been amputated close to the symphysis pubis, on account of carcinoma, showed no absorption in the posterior portion of the urethra.

A NEW METHOD OF ANÆSTHETIZING THE PHARYNX.—Rossbach (*Wiener Med. Presse; Cbl. f. Chir.*, 1880, 743), with a view to avoid the inconveniences of the local anæsthetics at present used in the pharynx, has endeavored to benumb the sensibility of these parts by internal medication, administering bromide of sodium in large doses with good effect. Since, however, the condition of stupidity and listlessness produced in the patient greatly interfered with the success of the operation, Rossbach endeavored to cut off the conduction of the sensory nerves of the pharynx, and thus to produce complete anæsthesia of the pharynx. The origin of the sensory branch of the superior laryngeal nerve lies at the point where this passes through the hyo-thyroid membrane, below the knobbed end of the large horn of the hyoid bone, into the pharynx. The nerve is so superficial at this point that a subcutaneous injection of one-tenth grain of morphia on each side at this spot anæsthetizes with the best results. Still simpler, and as certain, is the interruption of conduction by cold, as by means of Richardson's spray-producer, which has been modified by Rossbach so that the spray issues by two little openings, which are arranged to play upon the nerves of both sides at once. Anæsthesia is produced in from one to two minutes.

HYDROPS GENU INTERMITTENS.—Under this name Pletzer, of Bremen (*Deutsche Med. Wochens.; Cbl. f. Chir.*, 1880, p. 752), gives the case of an otherwise healthy woman of forty, who for twelve years had suffered from a painful swelling of the right knee-joint, which attacked her suddenly, without obvious cause, was accompanied by considerable fever, and lasted seven to eight days, ending in spontaneous recovery.

Three months later the same trouble occurred again, leaving in the same manner. This continued for four years, the attacks occurring at regular intervals. A regular intracapsular effusion into the knee-joint was demonstrated. The usual remedies—quinine, arsenic, iodine douches, etc.—were used in vain. Sulphur and saline baths, however, were employed to some advantage, the attacks growing gradually slighter, but recurring at shorter intervals,—that is, with only eleven days' intermission. The baths having been discontinued, the disease assumed once more the type of three months' interval. Other "cures" were tried without benefit. After a time symptoms of Basedow's disease began to show themselves, and the exudation in the knee-joint ceased to occur. An improvement in the patient's general condition was followed by a relapse of the knee trouble, which recurred at intervals of eleven days again. In February, 1879, the patient became pregnant, when the hydrops disappeared, but symptoms of the Basedow's disease again showed themselves, which did not diminish until the knee began to swell again. Pletzer considers the affection a vaso-motor disturbance.

NERVE-STRETCHING IN TABES DORSALIS.—Eulenmeyer adds a third successful case to those of Langenbuch and Esmarch (*Cbl. f. Chir.; from Cbl. f. Nervenheilk.*, 1880, No. 21). While the two latter surgeons resorted to this procedure because of the severe pain, Eulenmeyer performed the operation with a view to cure the ataxia, a result which Langenbuch and Esmarch accidentally found to follow nerve-stretching in their cases. His patient was a man of thirty-nine with well-developed tabes. The ischiatic nerves on each side were stretched through incisions made in the ischiatic notch. The result was not altogether satisfactory: the patient was enabled to stand, which previously he had not been able to do, but the ataxia remained the same. Eulenmeyer thinks this may have been because the nerves were not stretched enough.

TREATMENT OF HEMORRHOIDS BY DILATATION.—Junqué (*Bull. Gén. de Thérap.; Thèse de Paris*, 1880) recommends forced dilatation for the cure of hemorrhoids. The operation should be performed slowly and by means of the speculum. Junqué says it is without danger.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JANUARY 29, 1881.

PUBLISHERS' NOTICE.

THE circulation of *The Philadelphia Medical Times* during February and March will be twenty thousand copies. The surplus copies will be mailed direct to physicians in the West and South, affording a special opportunity for advertisers to secure the advantage of an extra circulation without any increase in rates.

EDITORIAL.

AMENITIES OF MEDICAL JOURNALISM.

THE parable of the camel's discomfort by the needle's eye may with some safety be applied to the attempt of an editor so to conduct a medical journal as to satisfy everybody. The legend of the old man and his ass is very suggestive of the situation, but not half strong enough, for the old man succumbed after his third attempt, while the editor's experience is a perennial wrestle with the opinions of those who watch the game. How easy it seems! Not a critic but could play it better. Not one who could not make things go as smoothly and noiselessly as a Jürgensen watch. Let him try it. He will soon find himself thinking of that shrewd magician who, after showing that a little trick with cards was apparently very simple, said, "It looks easy, doesn't it? Well, practise it sixteen hours a day for eight years, and you'll do it almost as well as I do."

Probably the lookers-on have no idea of the trials with which an editor has to contend; and the impatient critics are commonly those who increase his burdens,—men who feel that he has wronged or

snubbed them or is indifferent to them. Their manuscripts have been rejected. "The editor does not know a good thing when he sees it. He is partisan; one-sided; deals in favoritism; doesn't know how to run a journal; is full of unworthy prejudice, etc." Little they imagine how much less trouble it would cost him to publish everything that comes to hand, and thus please all writers, good and bad. How long would a journal exist if no discrimination, no censorship, were devoted to what is sent for publication? In that case imagine the *olla podrida* it would become!

Some men write only when they have something new to say,—something which they hope will be of use to the profession, or give rise to a healthful discussion, or lead to experiment. They write intelligently and unselfishly. Such matter is welcomed. Another, and unfortunately a large, class write for notoriety. They wish to be seen in print. They bid for practice. A fine example of this is Waldenburg's work on inhalation. One would hardly believe it amounts to nearly one thousand pages. An editor recognizes these fellows in what they write. The axe they would grind is easily seen. It is the editor's business to weed out stories so familiar that they are in the very air of medicine. This is not a pleasant task, but the experience is a healthful one for these anxious aspirants for practice, to gain which they are not at all particular as to the how. It certainly is the duty of an editor to give such men their proper place. If his aims are worthy, it is the support of the strong and sincere that he would win, and not the worthless approval of self-seekers who care neither for the success of the journal in which they would publish their fourth-hand matter, nor for the principle which should lead every medical writer to achieve something which will help brother practitioners and not merely cumber a periodical. There are, too, men whose enemy has written a book.

The opportunity being too good to be lost, they ask the publication of reviews in which, with scathing bitterness, they bespatter the unfortunate author with the ink of a criticism so unjust and discourteous that their manuscript is properly discarded by the editor, who thereby incurs unsparing disfavor.

These are extreme cases, of a nature, one would think, easy of management. But there are scores of contingencies to decide which calls for serious thought. The editor would not needlessly offend, neither does he like to feel that he is obliged to propitiate anybody. Still, if he would ever have blue skies and pleasant breezes in his sanctum, he must perforce pocket a certain degree of his independence. Thus it happens on occasion that he temporarily widens the meshes of his censor's sieve in order to give passage to an article which is too dull, too stale, or too youthful for the best interests of his journal. All, however, cannot be grain. It would indeed be a remarkable periodical which never contained chaff, for chaff often clings to the very corn itself.

The number of impulsive communications written by physicians of hasty mood and reflecting on fellow-practitioners is larger than would be believed. The suppression of these is an act of friendship on the part of a careful editor, and the impatience he thus creates in the souls of the writers is, in the majority of instances, succeeded by a feeling of thankfulness for his wisdom. But readers little know how few and rare are the expressions of approval which greet and cheer an editor, even of a successful journal. It is a common and trying attribute of human nature to criticise and condemn without stint, and, it may be, without cause; but praise and approbation, like an elided word, are left to be understood.

Of the unpunctuated, illegible, ungrammatical, tautological manuscripts; of the unreturned proofs intrusted to the hands

of authors for correction; of the individuals who come to give gratuitous and useless advice; of the bores who think the journal cannot move without their counsel; of a thousand other trials and annoyances, nothing need be said. These *impedimenta* form a part of the machinery of every journal. When a reader inclines to criticise a journal, let him first try his own hand at the helm, and he will not long remain ignorant of the rocks and shoals which lie in the way of plain sailing. Let it be remembered, too, that a course which to the uninitiated seems to lead directly away from the object to be attained may be merely the symptom of a head-wind which forces the ship into a zigzag route, even though she be steadily nearing the haven.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, DECEMBER 9, 1880.
THE PRESIDENT, Dr. S. W. GROSS, in the chair.

Aneurism of the cœliac axis. Presented by Dr. E. T. BRUEN.

THESE specimens were removed from the body of a colored man, aged about 32, who died in the Philadelphia Hospital a few weeks since. In abstracting my notes on his case I record that a syphilitic history was admitted, but that the individual had been a temperate man in the use of alcoholic drinks.

A pulsation could be felt about two and a half inches below the ensiform cartilage, but a distinct tumor could not be felt. There was no thrill. Careful percussion developed impaired resonance the breadth of the middle finger only. By auscultation, a murmur very prolonged, low-pitched, and of systolic rhythm. There was no bruit, nor could the murmur be heard in the femorals or at the bifurcation of the iliacs; it could not be heard at the back. It was heard first at ensiform cartilage, grew louder till a point two and a half to three inches below the sternum was reached, and then faded away. A deep-seated burning pain was lamented, and also a scattering pain radiating around to the anterior median line along the ribs: this pain he described as sharp, and at times it was much worse than others. Both sorts of pain were relieved by change of posture. His favorite attitude was

lying prone on the face. This helped vastly to mitigate the pain.

A treatment of rest was commenced, and it was designed to place upon him a plaster jacket, commencing the roller high up in the chest and to continue it to the hips. It was hoped that this would aid in fixing the aorta and aid in the treatment of rest in bed, a restricted and selected diet, and the drugs usually employed in these cases. It was decided to apply this dressing on a Wednesday. The day before, the man rose in the morning, expressed himself as feeling quite well, and was engaged in making his toilet, when he suddenly cried out and dropped dead.

Autopsy.—The abdominal cavity was filled with coagulated blood. A sacular aneurism about as large as a good-sized lemon projected from the left antero-lateral surface of the aorta. The walls of the sac were most attenuated; at the periphery of the tumor the external coat was about as thick as a piece of paper, and very brittle from calcareous deposit. The sac, when laid open, was found to be only partially filled with friable clots, not organized into layers, but irregularly disposed over its walls. The rupture occurred at the point most remote from the aorta, at the periphery of the tumor. The orifice communicating with the aorta was very small, about the size of a large hickory-nut. The other parts of the aorta and the heart were normal. The lungs, liver, and kidneys presented a natural appearance.

I would comment briefly on the infinite importance of quiet and rest in the treatment, and the advantage of fixing the aorta by means of the permanent dressing. Certainly the lateral movements of the body would have been much restricted, and the aorta probably saved many a flexion. Only at the last meeting I spoke of the supreme importance to the diagnostician of the prior history of the conditions favoring arteritis, and the evidence of pressure in the path of the aorta, and the percussion-signs of tumor. In addition to what I then said, let me add a word concerning the murmur as present in the case. The absence of bruit, the prolonged low-pitched murmur, with the systole, suggested to me that this was a fusiform aneurism caused by a general dilatation of all the coats of the aorta, especially as the evidence of tumor was so slight so far as percussion was concerned.

The orifice communicating with the aneurism was so small that very little blood probably entered and left the sac; besides, the sac was partially filled with clot, and at the autopsy it lay on the trunk of the vessel, doubtless obstructing its lumen, and I suggest it may have caused the murmur. The ante-mortem inference as to the shape of the aneurism has been, to my mind, sustained by the autopsy.

I show with this case an aneurism exhibited some time ago to this Society, the sacs entirely filled with laminated clot, and in which case

there was no murmur, unless the tumor, which projects anteriorly at the second right costal cartilage, was pressed upon so that the calibre of the aorta was lessened. A distant, long, low-pitched systolic murmur, without a taint of bruit, indicates to me that the sac of an aneurism is mostly filled with clots; and, unless I can identify a tumor by palpation or percussion, or by the symptoms of pressure on adjacent organs, I am apt to infer the existence of an aneurism by general dilatation of the coats of the vessel from the above-mentioned murmur. I do not mean to say that these general dilatations do not cause pressure-symptoms, but merely that these are not so pronounced, as a rule. But in this case the murmur deceived me, and a sacular aneurism only half filled with clots exists; but I hope the very small opening leading into the aorta will be deemed a valid reason for the absence of pronounced bruit.

Dr. NANCREDE took exception to the term "abdominal" aneurism, as he thought that a careful examination of the specimen showed conclusively that it was due to a dilatation of the coeliac axis, and did not involve the aorta at all.

Dr. BRUEN thought that this trunk might be partly involved, but was inclined to think that a part of the walls of the aneurism was formed by the aorta.

Dr. NANCREDE explained the anatomical reasons upon which he had founded his opinion, and which he thought were conclusive.

The President said that, as there seemed a difference of opinion on the subject, he would refer the specimen for examination to a special committee consisting of Drs. Bruen, Nancrede, and Formad.

"The committee appointed to examine the tumor agree to pronounce it an aneurism of the coeliac axis rather than aorta proper. This explains the fact that the orifice leading into the aneurism is so small, as it is the dilated coeliac vessel; but remarks in reference to the etiology of the murmur are equally pertinent.

EDWARD T. BRUEN,
C. B. NANCREDE,
H. F. FORMAD."

Spindle-celled sarcoma of the skin. Presented by SAMUEL W. GROSS, M.D.

Records of examples of sarcoma of the skin in the medical journals and references to that disease in the text-books are so very uncommon that I am induced to bring the specimen before the Society.

A married woman, 23 years of age, was brought to my clinic at the Jefferson Medical College Hospital on the 29th of September, 1880, on account of a painless tumor of the integument of the buttock, which was of the size of a small lemon, of a firm elastic consistence, and with a discolored and rugous surface. She first noticed it as a shot-like tubercle about three years previously, and she informed me that she had struck it a few

weeks before, and that the injury was followed by slight bleeding and rapidity of growth.

On section after removal, the cut surfaces were of a rosaceous-yellow shining hue, and had a fibrous tear. Microscopically, the growth was characterized, as can be seen from the accompanying slide, by small spindle cells contained in a homogeneous intercellular substance. Up to the present time the tumor has not recurred.

Dr. DUHRING asked whether in this case there was more than one growth. Although it was now, of course, difficult, or impossible, to determine the exact starting-point of the neoplasm, yet he was inclined to think that its site had been the subcutaneous cellular tissue. Dr. GROSS, he remarked, was correct as to the rarity of such growths, all authorities making similar statements. Indeed, Kaposi, the most recent German writer, one who has devoted especial attention to the pathology of skin affections, only devotes a short chapter in his treatise to sarcoma of the skin. He treats of the disseminated pigmented form only, which seems to be the most usual multiple form assumed by sarcoma when attacking the integument. Dr. Duhring knew of only one instance which had been reported in this country within the past ten years. This variety of sarcoma, however, was of such a different form from that presented this evening that he would not enter into any further details.

The whole subject of sarcoma of the skin had been opened up by a case reported by him. He had described the case at the meeting of the American Dermatological Association held at Saratoga in 1878 as an "Inflammatory Fungoid Neoplasm." A year later, at the third meeting of the same Association, he had read a supplemental report upon the case, when, owing to the report of Dr. Heitzmann, he had been inclined to suspect its sarcomatous nature. The disease represented by this case was closely allied to sarcoma, if not true sarcoma. About the same time Geber reported a similar case, also under the caption "Inflammatory Fungoid Neoplasm."

Kaposi, in commenting recently on these cases, says that he has no doubt of their sarcomatous nature. All the cases so far have proved fatal in about two or three years. Dr. GROSS had described his case as a "spindle-celled" sarcoma. Dr. Duhring would like to ask whether, in his experience, the round cell was not much the commoner variety.

Dr. GROSS said that he had notes of eight cases of sarcoma of the skin, but that he had been unable to find them in time for the meeting. He was, however, of the impression that Dr. Duhring's statement as to the greater frequency of the round-celled form was correct. The general history of these neoplasms is that they are most common after the fortieth year, that they soon ulcerate, and that they exhibit a decided tendency to recur after removal. With regard to metastases and the

final termination he was quite in the dark, as he had been unable to follow his cases. He thought that the apparent rarity of the disease was explicable by the fact that tumors usually come under the care of surgeons, and not of dermatologists. He would call Dr. Duhring's attention to Billroth's "Chirurgische Klinik," in the several volumes of which publication about twenty cases of sarcoma of the skin of various portions of the body are detailed.

Dr. DUHRING called in question the propriety of the term "sarcoma of skin," and thought that its primary seat had been the subcutaneous connective tissue.

Dr. GROSS said that there could be no doubt that it arose from and was limited to the skin, and stated the reasons for his belief.

Dr. FORMAD said that he had lately examined one of many nodules situated in the skin, which had been removed and sent to him by Dr. Nash, of Norfolk, Va. The microscope demonstrated that the growths consisted of round-celled sarcomatous tissue originating in the true skin.

Cancer of liver, with metastasis to the brain and other organs—Destruction of the occipito-temporal convolution without affection of special sense. Exhibited by Dr. H. F. FORMAD for Dr. H. C. WOOD.

T. C., æt. 42, came to the nervous wards of the Philadelphia Hospital early in September, 1880. He stated that he had been a heavy drinker, but had enjoyed good health until the last of August. On September 2 he was seized with giddiness, which lasted over twenty-four hours, but which did not leave him paralyzed. He affirmed that this was the first spell of the sort he ever had, and denied syphilis, headache, or any other known cause or premonitory symptom of the attack. Since the period of unconsciousness he has suffered from continued headache, loss of memory, giddiness, and frequent vomiting, the latter occurring without connection with the state of the stomach as to food, and not rarely in the night, as well as in the daytime.

September 15.—There were no signs of local palsies, and no disorder of vision, and the gait was perfect. There was partial bilateral deafness, which he states was of long standing; there was no anaesthesia. No disorder of the taste or smell was detected, although neither was closely looked for. The right hand exerted a power of 85, the left hand of 92. The liver was found to be very much enlarged, hard, and nodular, and the diagnosis of hepatic cancer was reached. There were no changes in his nervous symptoms, and he was sent to the general medical ward, October 27.

During the last two weeks of his life his mental powers failed very distinctly, his speech became somewhat incoherent, and his memory exceedingly faulty. He died November 10.

Autopsy.—Brain normal, except the under central portion of the posterior lobe of the left side; springing from the membranes in this position was an irregularly ovoid tumor about an inch and a half in the greatest longitudinal and transverse diameters, and about an inch thick. The tumor was of elastic, hard consistence, of dark-red color, and had the appearance of a firm old blood-clot; it was not encapsuled. It had pressed upon and destroyed, by softening, almost the whole of the central portions of the occipito-temporal convolutions. The hippocampus was touched upon, but not altered to any extent. The softening had progressed so far as to open the lateral ventricle, the destruction not involving any of the central ganglia or the crus cerebri.

The membranes of the brain were abnormally thickened everywhere, and the fissures were bound together by inflammatory exudations. The one corner of the tumor had produced a small superficial spot of softening in the cerebellum; the attachments of the tumor to the surrounding tissues were very loose. A decided increase of cerebral fluid, turbid in appearance, was observed. Skull normal.

Examination of the thoracic cavity revealed pericardium and right lung and pleural sac normal. In left pleural cavity extensive adhesions and two pints of a turbid effusion were found; left lung strongly congested, and a wedge-shaped cavity of evidently embolic origin was seen.

Mediastinal and bronchial glands enlarged; heart normal. The abdominal cavity contained one gallon of a straw-colored liquid; no peritonitis.

Liver very much enlarged; weight nine and a half pounds, of dark-brown color, and studded with the protruding, umbilicated, white nodes peculiar to cancer, varying in size from one-half inch to five inches in diameter. The head of the pancreas was also involved by similar nodes. Mesenteric glands greatly enlarged and noded. Kidneys invaded by a number of small nodules, scattered throughout the capsules as well as the parenchyma of the organs.

Stomach, intestines, rectum, and rest of organs normal.

Microscopic examination by Dr. H. F. Formad determined the structure of the new growth of the liver, of the brain, and of the other organs to be that of a *cylindrical epithelioma*, the primary growth having developed in the liver.

Dr. FORMAD added that the new growth, of the brain especially, showed typically the peculiar cones built up of cylindrical epithelium piercing through a vascular connective tissue in every direction; that at the same time, however, it demonstrated in places well the direct transformation of a cylindrical epithelioma into a simple glandular carcinoma, as described first by Perls, the solid cones

of the epithelioma breaking up; and the cylindrical epithelial cells are distinctly seen *transforming* into spheroidal cells, which fill, loosely packed, the alveolar spaces.

Tuberculous growths (tyroma) of cerebellum.

Exhibited by Dr. H. F. FORMAD.

This specimen and some notes of the history I obtained through the kindness of Dr. E. R. Girvin, who will present the interesting history of the case in full to the County Medical Society.

Miss G., aged 21, was never confined to bed with any sickness prior to the malady which terminated fatally. She complained, however, of occasional headache during the last eleven years, which she always located at the occipital region. She received an injury eleven years ago by a fall from a swing, striking this region of the head upon a projecting board, the accident being followed by loss of consciousness, which lasted, however, only a few minutes. With the exception of the periodical localized headache, which started from the time of the injury, she remained perfectly well.

In February, 1880, the paroxysmal headache became of more grave nature, the attacks developed in frequency to one every five or six days, each attack lasting three to four days, the pain radiating over the entire top of the cerebrum and attended with great hyperæsthesia. The skin cool; pulse compressible, thready, and irregular, ranging from 70 to 100. During April, May, and June the patient improved, but subsequently the attacks recurred with increased severity, and were followed by difficulty in vision,—viz., double sight. Examination by Prof. W. F. Norris revealed choked disks affecting both eyes. Later, complete blindness ensued. There was a slight loss of power of left side of body, and sometimes twitching of the muscles of left side of face was noticed, and staggering gait. She complained sometimes of a momentary swinging or rotary sensation. The intellect was clear and the memory not impaired. During August and September the condition of the patient again improved. September 27 the attack suddenly became more severe, and, growing in intensity, terminated by death on October 1. During the last few days of life there was loss of power of deglutition, also of sense of smell, taste, and hearing; general sensibility and clearness of mental faculty were perfect up to death.

A complete autopsy was objected to. I examined only the brain, with the following result:

Skull normal. Dura mater normal, except over the left side of the cerebellum, where it was thickened and adherent to the bone. Pia mater opaque, slightly thickened, and showing evidence of previous strong congestions and repeated effusions.

Examining the cerebellum by section, there were seen a number of yellowish-gray nodes

of a new growth, varying in size from one-fourth to three-fourths of an inch in diameter, located both in the gray and white matter of the left side and at the middle of the cerebellum, in close proximity with, but not involving, the pia mater. The left side of the cerebellum was also thicker than the right. Over the seat of the tumefaction was a distinct localized septomeningitis, and adhesions between the membranes.

The cerebrum was very anæmic, otherwise of perfectly normal appearance in all parts. An increased quantity of fluid was noticed in the lateral ventricles.

Microscopic examination.—Nothing abnormal in cerebrum; the pia mater showed, however, numerous tubercle granulations in the course of the blood-vessels. Examination of new growth of the cerebellum proved it to be of a tuberculous nature, showing the structure of a non-vascular granulation tissue containing numerous nodules, some of which were undergoing cheesy degeneration. Transverse sections of obliterated blood-vessels, and also true giant cells, were conspicuous. The granulations of the periphery of the nodes show a distinct attempt at fibrillation,—the formation of a capsule. The location also of the new growth of such structural elements leaves the diagnosis of *tyroma* beyond doubt, excluding two other possible new formations, the gumma and glioma.

The direct etiological relation of the new growth to the injury received eleven years prior to death is here highly probable, and hence in favor of the theory of inflammatory origin of tumors.

Cancer of stomach. Presented by Dr. J. H. MUSSER.

The patient whose stomach I present for your examination applied to me for treatment the 11th of March of the present year. From him I gleaned the following history.

H. O., æt. 55; butcher; moderate drinker, excessive smoker; has been a hard worker; unfortunate in business, and, of late years, in poor circumstances; has had considerable mental strain; always healthy until present illness; no venereal diseases; family history good; wife died of cancer of the stomach eight months ago.

Present illness was of six months' duration. Increasing languor, debility, and emaciation, dyspnoea on exertion, continual yawning, sleeplessness, and loss of memory, have been noticeable symptoms. What most distressed him, however, was a weight and fulness after meals in the stomach, with flatulence, lasting two or three hours, and only being relieved by forced vomiting; thirst has been very great; constipation persistent and increasing.

His condition when examined was as follows. Large, heavily framed; very much emaciated, having lost seventy pounds; countenance did not indicate suffering from pain but from mental torture; face emaciated; eyes

sunken; conjunctiva pale; sclerotic dead-white; lips pale; complexion dirty-yellow; extremities cold; voice weak; speech slow; sighs considerably; mind is sluggish; memory poor; heart and lungs normal; pulse 90, feeble; tongue large, pale, flabby, heavily coated; teeth poor; throat dry, slight pharyngitis; appetite fair; thirst great; after eating, weight and fulness in the stomach; great flatulence; never vomits involuntarily; when he provokes vomiting the matters ejected are the contents of the stomach and greenish fluid, never blood; bowels very costive.

Inspection of abdomen reveals a pulsation between the xiphoid cartilage and the umbilicus, and a distinct prominence to the right of the median line above the umbilicus. *Palpation* defines the bulging to be two and a half inches above the umbilicus, a little to the right of the median line, and extending within one-half inch of the ribs. *Percussion* does not define any resonance between the normal dulness of the liver's margin and the mass. No pain on pressure, and no increase of local heat; no murmur on auscultation. Liver and spleen normal size; urine not examined.

May 1.—Learned from one of his family that he had emaciated very much and become much debilitated.

May 24.—Called to him again, and found him extremely emaciated. Abdomen very scaphoid. Pulsation very visible. Mass observed two inches above umbilicus, between the median line and the ribs. Percussion defines the tumor in that area, extending three inches along the ribs. The size of the mass is greater than when first examined, or the scaphoid state of the abdomen causes it to be more readily outlined. No tenderness on pressure. Paroxysmal pain of a burning or sharp, shooting character. Almost constant vomiting. Matters vomited are the food and an acid, white liquid, burning the fauces and mouth. At times, however, free from vomiting, so that to relieve the distressing sense of fulness he has to provoke it. Tongue large, pale, flabby, coated; pulse 96; bowels constipated. Skin itchy, dry, with a general pustular eruption on it. No sleep; very restless.

May 26.—A powder, given every three hours, containing morph. sulph., gr. $\frac{1}{2}$, sodæ bicarb., lactopeptine, aa gr. ij, pulv. aromat., gr. $\frac{1}{2}$, prescribed on the 24th, gave relief to the pain, stopped the vomiting, caused sleep, and permitted the more liberal use of milk.

The symptoms were all better, though he took scarcely any nourishment, and on the 31st of the month he died of exhaustion.

Post-mortem (twenty-four hours after death).—Body extremely emaciated; abdomen concave; skin of same color as before death, very rough; rigor mortis well marked.

Abdominal cavity alone examined. Tissues bloodless on section; organs in normal position; no ascites.

Stomach very much dilated; vessels con-

gested, both arteries and veins, especially near the pylorus. It contained a dark-gray liquid; no blood. At the cardiac end of the stomach the mucous membrane was very pale, becoming more congested towards the pylorus, with swelling and softening of the mucous membrane and some thickening of the walls towards the pylorus. At the pylorus the walls were much thickened, from one-half to three-fourths of an inch, and projected into the stomach as a shelf. The walls of the duodenum were involved to the extent of two and a half inches from the pylorus. They were infiltrated by a dense, firm mass of tissue, softer an inch from the pylorus than at the pylorus. At some points the thickening was greater, giving the appearance of nodules. Neither the pyloric orifice nor the intestine was occluded, both admitting one finger. I neglected to state that the congested portion of the mucous membrane was bathed with mucus. The mesenteric glands were enlarged.

The liver was slightly fatty; weighed two pounds fifteen ounces. The other abdominal organs were natural to a person dying of chronic disease. The pancreas was normal, situated back of the mass, and removed with it.

Remarks.—At the time of the first examination cancer was diagnosed and an unfavorable prognosis given. I was not called in again until shortly before death; hence the absence of notes in the interval. The symptoms and course were characteristic of cancer of the stomach, and the autopsy confirmed the opinion. The microscopical appearances of the tumor are those of a scirrhous, with a few spots of degeneration.

Cirrhosis of the liver and kidneys—Liver deformed—Death from softening of the brain.

Presented by Dr. J. W. MUSSER.

I visited the patient from whom the specimens before you were taken the first time on the 8th of October, 1879. Her condition at that time and the subsequent course of the disease are embodied in the following notes:

Mrs. H., æt. 57, born in Ireland, a resident of Philadelphia, for the past two years living in an intensely malarial district near the Schuylkill. Different members of the family have had malaria the past three months. Married. Eleven children; six living and healthy; the others died of acute disease in early childhood or youth. Circumstances and comforts of life quite moderate. Considerable mental worry from the cares of a large family and on account of husband's intemperance. Habits good.

Father died of "jaundice." Cause of mother's death unknown. A sister died of consumption. No further evidence of hereditary disease.

Always healthy, save an attack of ague twenty years ago, and, for several years, frequent attacks of "biliousness." These attacks were characterized by anorexia, nausea,

and vomiting of a yellow-and-green matter, with or without diarrhoea. No syphilis.

For six months patient has suffered from poor appetite, bad taste in the mouth, flatulency and acidity, and irregular bowels. The past three weeks has been quite miserable, being without appetite and very weak. Cramp-like pains, coldness and heaviness of the lower limbs have troubled her for a week, while for two days she has been vomiting.

At present (October 8) she is quite weak, somewhat emaciated; extremities cold; skin of trunk warm and harsh, of a dark, muddy color; face of same color, with injected capillaries of the cheek; conjunctiva yellowish; heart normal; pulse 130, weak; lungs normal; breathing hurried, thirty to the minute. The hurried pulse and respirations are due to the exhaustion from vomiting. Nausea is constant; vomiting occurs every half-hour. The matter vomited is a yellowish, sour liquid, with flakes of mucus in it; no blood. Sourness over stomach, but no pain.

Inspection of abdomen reveals a slight general enlargement, with localized bulging in the right hypochondrium. No enlarged veins. On palpation, it is found that a smooth, hard tumor occupies the following area: Extending from the outer border of the right rectus muscle to the axillary line. The lower margin is, at the outer border of the right rectus, one inch above a horizontal line through the umbilicus from left to right. In the nipple-line it extends to the line, in the axillary region to an inch above the crest of the ilium. No pain attends its handling. The upper boundary of the liver begins at the fifth rib on deep, in the sixth interspace on superficial, percussion. From thence dulness extends to the margin defined by palpation, being continuous with the tumor-dulness. The left hepatic lobe is not enlarged. Normal liver-dulness not increased posteriorly. With inspiration and expiration the entire mass moves, so that it is, with the evidence of percussion, connected with the liver. Spleen is not enlarged. Bowels are costive.

Appropriate diet and sedatives soon allayed the gastric symptoms, and in three days she was ordered cinchona, strychnia, and muriatic acid, and a regulated diet.

About three weeks afterwards her urine burned her very much when passed. It was found to be of an acid reaction, a dark-red color, without albumen or sugar, containing urates and bile-pigment.

In November she had a sudden, profuse, painless uterine hemorrhage. Her menses had ceased years ago. This was the only hemorrhage throughout her illness.

I saw her again December 11. She had emaciated somewhat. She was very weak. Her eyes were jaundiced, the capillaries of the face congested, and the skin of the face dark or bronzed, as previously noted. She had some slight fever, and a pulse of 110.

Her appetite was poor, tongue coated brownish, red and glazed at the edges, thirst great, bowels regular. Would not allow an abdominal examination. Suffers from pain in the loins. Urine is scanty. A dry, hacking cough annoys her very much. At times a dark-yellow expectoration. No physical signs of bronchitis. Slight œdema of feet.

12th.—(Edema subsided somewhat. Nausea and vomiting all night. Vomited matter at first like the yolk of an egg, later a watery fluid with flashes of green-tinged mucus floating in it and green masses at the bottom of the vessel.

13th.—Vomiting better. No fever. Pulse 100. Liver as before noted; descends three inches, and is pushed to left by the ilium. No œdema. Colic and diarrhœa last night. Much stronger. Urged continuance of the previously ordered acid tonic.

23d.—Another gastric attack, as previously. January 16, 1880.—Noted as follows: Been visiting her every week, and find mind gradually failing. Wanders readily from a subject, talks of unreal occurrences, and of nonsensical matters. No memory. Sleeps poorly. Slight headache. Urine scanty, very red; specific gravity 1020; slight albumen. No jaundice. Considerable tympanitis.

21st.—Urine high-colored, acid; slight amount of albumen; no sugar; bile-salts and pigment. Microscopically, bladder-epithelium, pus, uric acid, and an abundance of phosphates. Growing weaker and weaker. Dry, brown tongue; slight gastric pain; no vomiting; regular bowels; slight ascites; no headache. Poor sleep; wandering delirium; refers to imaginary occurrences. Is continually enacting the movement of winding a spool of thread.

31st.—Peritoneal fluid increased. Pain in abdomen. Temperature not elevated. Pulse 120. "Some smothering about the heart." Mind less composed than before. Urine scanty.

February 2, 1880.—Urine scanty; eight ounces passed in twenty-four hours; high-colored. Microscopically, red blood-cells in abundance, a few white cells, epithelium from kidneys, ureters, bladder, and vagina; a few crystals of oxalate of lime. Urates, phosphates, and tube-casts absent; bile-pigment in abundance. Chemically, bile, one-sixteenth albumen; no sugar.

5th.—Ascites increased. Tongue flabby, red, and fissured. Vomited once,—bile. Bowels regular, fœces dark-colored. Pulse 120. No œdema of feet. Feeble; more stupid. Recognizes with difficulty, and comprehends poorly. At apex of heart a "murmurish" sound.

March 2.—Vomiting a dirty-yellowish, offensive, copious matter. Diarrhœa past two days; stools thin, clayey, offensive. Urine passed involuntarily. Is semi-conscious; aroused with difficulty, and murmurs unintelligibly. Lies on right side, with the knees

and legs drawn up and head bent to the chest; lack of co-ordination in movements for a week. Past three weeks face has had the appearance of dementia, as in cerebral softening; not the cirrhotic countenance.

12th.—Pulse 100, moderately strong, regular; respiration 32, short. Twitching of the muscles of limbs. Can be aroused. Some hyperæsthesia; slight fever. Does not take food; urine and fœces passed involuntarily.

Became more and more unconscious, and died on the 13th in coma.

Autopsy.—Examined twenty-four hours after death, Dr. W. E. Hughes assisting.

Rigor mortis not well marked; body not extremely emaciated; skin dark, dirty color; no anasarca or jaundice.

Abdominal walls one and a half inches thick; fat moderately abundant. Cavity of abdomen almost filled with a clear, light straw-colored fluid; no flakes of lymph, and no adhesions; no congestion of the visceral or parietal peritoneum. Liver not displaced, occupied the position defined during life; other organs in normal position. The liver was not nodular, but its surface was granular, and on section it was dense and firm, granular with increase of connective tissue. A slight indentation marked this. The right lobe measured five inches from right to left, the left three inches. From above downwards the right lobe measured seven and a half inches, the left three inches. The right lobe was two and a quarter inches thick, the left two inches. It weighed two pounds two and a half ounces. Spleen normal in size, dense. Kidneys enlarged, congested, weighed ten ounces each; capsule easily removed; proportion between cortical and medullary portion normal. Mucous membrane of stomach and intestines pale.

Heart, left ventricle contracted; mitral valve slightly thickened. Lungs slightly œdematous. Brain not examined.

Fluid of peritoneum contained albumen, sugar, and urea. Kidneys, microscopically, were congested, and in early stages of cirrhosis. Liver markedly cirrhotic.

Remarks.—The cause of the enlargement only of the right lobe of the liver, and only of the anterior portion, at first puzzled me. It could not be a hydatid, or a purulent or serous collection between the liver and diaphragm pushing the organ down, for the lungs were not encroached upon, nor were there any other confirming symptoms of such conditions, as fluctuation or fever. There were no symptoms or signs of disease of surrounding organs, as the kidneys, to cause a dislocation of the liver. Hydatids, abscess, and cancer were excluded, from absence of symptoms peculiar to each, although the indefinite cause of the father's death made me consider cancer carefully. The knowledge of the patient's habit of tipting, which I learned after her death, would have confirmed my suspicion of

cirrhosis. Before the symptoms of the second stage of cirrhosis developed it was only suspected; for in the first stage the liver is enlarged uniformly; this was of one lobe. The symptoms of the second stage confirmed my suspicion, although there was no contraction.

The commencing Bright's disease was aggravated by the ascites, no doubt. The amount of fluid was never so great as to interfere with respiration or cardiac action. The state of the mind forbade tapping.

The cause of death was undoubtedly softening of the brain. The renal complication was not sufficiently grave to cause uræmia. The cirrhotic cachexia was not sufficiently developed to produce the cerebral symptoms of the later stage of cirrhosis.

PHILADELPHIA ACADEMY OF SURGERY.

MEETING OF DECEMBER 6, 1880.

The President, DR. S. D. GROSS, in the Chair.

CASES OF CLUB-FOOT.

DR. T. G. MORTON exhibited some cases of club-foot in which treatment had been instituted soon after birth. The method of treatment consisted in manipulation and the wearing of proper shoes, without tenotomy. The cases had resulted very satisfactorily, and were presented in illustration of the remarks made by Dr. Morton at previous meetings of the Academy.

Dr. S. D. Gross remarked that tenotomy for the cure of talipes was apparently harmless and gave good results, and, although death might occur in exceptional cases on account of improper after-treatment, it certainly was a termination that was never to be expected.

Dr. Morton had once seen erysipelas and deep abscess follow tenotomy, but this is very unusual. The trouble that occurred in such cases was due, as a rule, to the neglect of proper after-treatment on the part of the parents. Hence, in cases seen in infancy he attempted, and usually was able, to cure the talipes without tenotomy, except in some instances of equinus, when he was obliged to divide the tendo Achillis. This he did when the child began to walk.

Dr. S. W. Gross thought the ordinary method of operating useless, and the usual method of applying the shoe a barbarity: still, he believed that division of the tendo Achillis was preferable, because it hastened cure. The varus should be overcome by manipulation first, and the heel then brought down. After manipulation has been begun, the foot may be kept in place by adhesive plaster carried around the foot and up the leg.

Dr. D. Hayes Agnew knew of death occurring after division of the soleus in the calf,

probably on account of the posterior tibial artery having been divided. In his opinion, no operation is wise at an earlier age than one year, but in the mean time it is well to correct deformity and develop the paralyzed muscles by manipulation.

Dr. De F. Willard considered it hardly proper to disrupt at an early age, because inflammation might occur, and manipulation continued through a series of weeks would accomplish the same purpose.

POSTURAL TREATMENT OF FRACTURE OF THE CLAVICLE.

Dr. R. J. Levis presented the last three cases of fracture of the clavicle that had been under his care in the Pennsylvania Hospital, in order to demonstrate the superiority of the postural method of treatment. The cases admitted are usually liable to great displacement, on account of the muscular development of the patients, but by this manner of managing the fracture union is obtained with so little deformity that the seat of fracture is often difficult of detection. The patient, on admission, is placed in bed in the supine position, with a pad under the inferior angle of the scapula to fix it and make it a lever; and then, by slightly elevating the head, to relax the sterno-mastoid, and carrying the arm of the injured side across the chest, accurate apposition of the fragments is usually obtained. If it is found necessary to carry the outer fragment more strongly backwards, a bag of shot or sand is laid upon the point of the shoulder. If this line of treatment is adopted for ten days, sufficient fixedness and solidity are obtained to permit the subsequent management of the fracture to be conducted with the patient in the erect position without any special apparatus. The cessation of muscular irritability and the partial union by soft callus render displacement improbable after this lapse of time, and an ordinary sling to support the arm is sufficient. This manner of dealing with fractured clavicle was recommended by Hartshorne, and seems to yield excellent results.

Dr. John H. Packard remarked that when the clavicle is broken the serratus magnus muscle drags the scapula forward, and it is because the method described prevents this action that the good results ascribed to it are obtained. When the clavicle is intact, the scapular and clavicular movements take place around the sterno-clavicular articulation.

Dr. T. G. Morton had seen Dr. Edward Hartshorne employ this method in the Pennsylvania Hospital many years ago. He placed a pad on the inferior angle of the scapula and another on the point of the shoulder to draw the acromial end of the clavicle outwards.

Dr. A. Hewson, on looking at the patients, who still wore the retentive bandages, expressed his opinion that the shoulder of the

affected side was lower than the sound one in each of the three cases presented for examination.

Dr. Levis stated that this was only apparent, and due to want of similarity in the posture of the two arms.

TRIPLE CYST OF NECK CURED BY INCISION AND DRAINAGE.

Dr. T. G. Morton presented a patient who had been treated for a cystic tumor of the neck. It had existed about four years, and was incised with a bistoury on October 23, 1880, when it was found to consist of three distinct cysts. Thick serous fluid, of a specific gravity of 1024, was evacuated, and a drainage-tube inserted. In five or six days the tube was removed, but subsequently the tumor became tense, respiration difficult, and the temperature reached 103°. Two openings were made with a trocar, and efflux of purulent fluid allowed to escape. After some difficulty in restraining superficial bleeding, caused by the trocar dividing a vessel, drainage was instituted and carbolic dressings applied. From this time the man continued to improve, and recovered without further trouble.

CYSTIC BRONCHOCELE CURED BY TAPPING AND DRAINAGE.

Dr. Morton also exhibited a woman with cystic bronchocele, who had been successfully treated by tapping and the introduction of a drainage-tube. The cyst had been repeatedly tapped by several operators, but finally supuration occurred, and, as threatening symptoms were present, he introduced the trocar and treated by drainage. There was now scarcely any tumor to be found, on examination.

IMPROVED PATELLA-HOOKS.

Dr. R. J. Levis showed a recent improvement of his separated patella-hooks, which consisted in substituting for the long screw an ordinary thumb-screw to clamp the two hooks together after the fragments had been drawn into close apposition by them.

A SUBSTITUTE FOR HUTCHISON'S METHOD OF TREATING COXALGIA.

Dr. Levis also presented a patient under treatment for coxalgia, where extension was obtained by flexing the knee, encasing it in a silicate-of-sodium bandage, and allowing the man to walk with crutches. The flexion prevented the foot from touching the ground, and the weight of the limb kept up extension. At night the laced silicate splint was removed and weight-extension applied. This was merely a modification of Hutchison's plan, in which the sole of the shoe of the sound limb is thickened in order that the diseased limb may swing clear of the ground and give extension by its own weight when the patient walks

with crutches. The method shown seemed to avoid the awkward elevation on the sound side. Weights could be attached to the flexed knee if more powerful extension was desirable.

CONGENITAL DISLOCATION OF BOTH CRYSTALLINE LENSES (ECTOPIA LENTIS).

Dr. John B. Roberts presented this case, with the following history:

I am told that this boy, aged 12 years, has had defective vision from infancy, though he has learned to read by going to school. Inspection at his first visit showed me at once some divergence of the axis of the left eye; and, after dilatation of the pupils with atropia, the cause of his imperfect vision was apparent. Both lenses were seen, by oblique illumination, to occupy the upper and inner portion of the circular aperture of the dilated pupils, and appeared as pearly disks, without movement, attached in this abnormal position. The iris of each eye was tremulous at its outer and inferior segment, on account of its being unsupported by the lens and its ligament at that point. When examination with the ophthalmoscope was made, the periphery of the lens appeared as a black ring,—very much as an air-bubble under the glass cover of a slide looks through the microscope. The fundus could be seen through the lens, but I found it difficult to make out the vessels distinctly: it seemed as though there was haziness of the lenticular substance. Alongside of the lens the fundus could be examined without difficulty by using a +4 lens with the direct examination. The disks seemed pale, but the movement of the eyes, and the necessity of looking through the pupil but not through the lens, made accurate study of the fundus tedious. His vision in the left eye (the strabismic one) was limited to mere perception of light,—or, at least, he was unable to count fingers held before him. The retina seemed entirely amblyopic, for no marked change was seen with the ophthalmoscope. The right eye had an acuity of vision amounting only to $\frac{2}{C}$.

I determined to test him with cataract-glasses, since the eyes, as regarded the visual axes, were evidently in the condition of aphakia. With the left eye nothing was to be done, but with +4½ focal (about 8.50 D) I was enabled to give the right eye vision amounting to $\frac{6}{LXX}$. For reading, +3 focal seemed the best glass, but even then his vision was limited to moderately large print held close to his eye; indeed, he was able to read almost as well without glasses by holding the page within an inch or two of his face and in an oblique direction. He then probably got the rays to pass through the displaced lens. The lens for distance was prescribed when he was first seen.

One month later he returned delighted with

his spectacles, and said he could distinguish the Camden ferry-boats across the river. Examination showed his vision to have increased to $\frac{12}{LXX}$ —twice as much as he saw when spectacles were ordered, at which time, however, the eyes were under the mydriatic effect of atropia.

This is a case of congenital displacement of the lens similar to those usually seen, for the condition is generally double, and the lenses usually occupy the upper and nasal section of the posterior chamber. There is often a hereditary tendency to ectopia lentis, but I do not know that any one of this boy's family has had a similar malformation. The eyes are said to be myopic, as a rule, and we would rather expect them to be imperfectly developed.

No operation would be justifiable in this case, for the left eye is amblyopic, and the right is too useful, now that he wears spectacles, to risk its loss by endeavoring to extract the displaced lens. Abnormally-developed eyes are not apt to bear operations well; and destructive inflammation might follow the performance of extraction.

GUNSHOT WOUND OF KNEE-JOINT AND POPLITEAL VEIN FOLLOWED BY PYÆMIA.

Dr. R. J. Levis exhibited a specimen from a case in which death had occurred from pyæmia due to wound of the popliteal vein. A pistol-ball had entered at the inner side of the ligament of the patella, and, passing through the head of the tibia and obliquely downwards and backwards, had lodged just beneath the integument in the middle of the calf, where it could be easily felt, and was removed by incision. The ball was of large size, weighing one hundred and twenty grains. The patient, a woman, was first seen October 31, 1880. The limb was placed in a fracture-box, and carbolyzed irrigation applied to the knee. She had with her an infant at the breast, about which she fretted a great deal.

November 3.—Her condition was good up to to-day, when she had a slight rigor. Foot is much swollen and dark. Ordered quinine and iron.

5th.—Irrigation discontinued. General phlebitis was evident, and the leg up to the middle of the thigh was of a dark bluish tinge, while fluctuation of pus in the connective tissue was distinct. Free incisions were made, and a large quantity of pus discharged. Leg placed in fracture-box, in bran dressing.

6th.—Entire limb much swollen and black. Died in the evening.

Autopsy showed metastatic abscesses in the liver, kidney, and spleen, and the lungs were filled with infarctions. Decomposition had set in unusually early. The autopsy showed, moreover, that the ball had traversed the popliteal vein. Phlebitis had commenced at the wound in the vein, the open calibre of

which was exposed to the reception of the septic products of inflammation of the surrounding structures.

JOHN B. ROBERTS,
Recorder.

REVIEWS AND BOOK NOTICES.

PHYSIOLOGICAL CHEMISTRY. A Text-Book of the Physiological Chemistry of the Animal Body, including an Account of the Chemical Changes occurring in Disease. By ARTHUR GAMGEE, M.D., F.R.S. Vol. i. London, Macmillan & Co.

We have here the first volume of what is destined to be the most complete work in the English language upon this subject so important to the student of medicine. In the present volume the chemical composition of and the chemical processes relating to the elementary tissues of the body are treated of, the blood, lymph, and chyle being included in that classification. This volume forms a complete and independent work; though it is intended that it shall, within twelve months, be followed by a second volume, in which the chemistry of the chief animal functions will be treated of.

The first chapter, on the "Proteids," is especially valuable, as we have here a satisfactory statement of these compounds so complex and concerning which so little is generally known. On page 16 is a synopsis of the chief proteid bodies, classified according to their most characteristic reactions. About two hundred pages are devoted to blood alone, and of this the parts are first described in detail, then the changes which the blood undergoes in disease discussed, and finally a very full description of the several methods of research involved in a thorough chemical study of the blood under all possible conditions. The completeness of this section may be judged when we mention that it includes an account of the absorption spectra of the blood and the method of observing them and mapping the results, forms of apparatus, too, being given in detail; methods for the quantitative analysis of all the constituents of the blood, both normal and abnormal; the methods of gas-analysis in connection with the analysis of the gases of the blood; and the medico-legal detection of blood-stains and of carbonic oxide in the blood.

On page 406 and the following pages is a most valuable historical sketch of the theories of muscular action from the time of Mayow to that of Liebig and Mayer, and a lucid statement of Hermann's theories, which are the present resting-point of the controversy.

On page 426 is an interesting statement of the chemical dispute as to the existence of protagon, the crystallized brain-principle, and, following this, an account of the decomposition products of lecithin and protagon.

The book gives us most valuable summaries of the present state of discussion among investigators as to important points yet in debate. In addition to the examples just given above, we may be allowed to instance the very interesting account on page 461 and following pages of Kühne's researches upon the "visual purple" of the retina.

The book is well printed and bound, and will, we know, be appreciated. The second volume, if carried through in a similar manner, will make the combined work one indispensable to the student of physiology. s.

HAND-BOOK OF CHEMICAL PHYSIOLOGY AND PATHOLOGY, WITH LECTURES UPON NORMAL AND ABNORMAL URINE. By VICTOR C. VAUGHAN, M.D., Ph.D. Ann Arbor, 1880.

It is essential, in examining this book and passing upon its merits, to remember that it is made up, as indicated by the title, of two distinct parts, and is not a continuous whole. The first part takes up especially the secretions and the more important tissues, and describes the chemical constituents of each, together with the physiology and pathology of the secretions, or even of the more important individual chemical compounds in each secretion or tissue. The chemical descriptions are clear, and when decompositions are spoken of the chemical reactions are written out in all cases where the change is simple enough to be capable of such expression; the sections upon the pathology of the more important chemical compounds are also quite full, and will no doubt be of value to the practical physician. The methods for the qualitative analysis of the several animal fluids are taken largely from Hoppe-Seyler and Gorup-Besanez, to both of whom the author acknowledges his indebtedness.

The second part of the work, to which the plates bound up at the end of the volume belong, is a series of practical schemes of analysis of urine suitable for class instruction (for which it was originally written) or for the guidance of the practical physician. These are also quite full, and are well written. It is a pity that a book containing so much valuable matter has no table of contents and only a trifling index, so that one has to hunt for its best points. It is, moreover, printed upon rather inferior paper, and the binding is more suggestive of old patent-office reports than of a book designed for constant reference in the medical laboratory. s.

MEDICAL DIAGNOSIS. Fifth Edition, Revised. By J. M. DA COSTA, M.D. Philadelphia. J. B. Lippincott & Co., 1881.

In this edition the chief changes are in those parts which treat of diseases of the nervous system and of the blood. Very careful work in these portions has resulted in rendering the chapters very satisfactory, and really enhancing the value of the book. We

have only one point to call attention to,—pernicious anæmia. Is it really different from pseudo-leukæmia? It seems to us proven that there are three forms of leukæmia and three forms also of pseudo-leukæmia, viz., splenic, lymphatic, and myelogenic; and we can see no diagnostic difference between acute pernicious anæmias and myelogenic pseudo-leukæmias. Dr. Da Costa's work surely does not in any way clear up the deficiencies. We are glad to learn that a translation of the book into German is being published by Hirschwald. American medical literature in the practical branches bids fair to lead the world: will not some rich man help to maintain scientific pre-eminence by endowing laboratories and professorships so as to enable Americans to work in science?

A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE. By AUSTIN FLINT, M.D. Fifth Edition, Revised and Largely Rewritten.

The fourth edition of this book was published in 1873, and in the rapid progress of events had fallen behind the science and art which it represents. After careful examination, we find that these deficiencies have been made up, and that in some directions the work in its augmented size more nearly represents the world's knowledge than it ever did. Seven chapters, concerning the general pathology of the solid tissues and of the blood, have been added by Dr. William H. Welch, and are very good. On the whole, the work now seems to us distinctly the best of its kind written by an American, and at least equaling anything in the language. It hardly equals in its thorough satisfactoriness, to our thinking, the great work of Jaccoud, but we have never used any German rival in all respects equalling it. Even Niemeyer is less desirable. When, however, a certain point of excellence is reached, individual opinion is so modified by idiosyncrasies that each man judges by his own needs and fancies, and some may prefer the present volume above all others.

PRACTICAL HISTOLOGY AND PATHOLOGY. By HENEAGE GIBBS, M.B.

The object of this little volume, as stated in the preface, is to lay before the practitioner and student of medicine a few concise and simple methods by which the various tissues of the body may be prepared for examination with the microscope. This object is well accomplished, as the work constitutes a clear and well-written introduction to the technology of the subject. It forms a good guide for beginners, besides containing much matter of interest to more experienced workers. Especially is this last the case in the chapters on staining and double-staining, in which quite a complete account of the action, durability, and practical value of the various sub-

stances used is given, the account including most of the more recent dyes. On the whole, our impressions are decidedly in favor of the book.

F. D.

A MANUAL OF THE PRACTICE OF MEDICINE AND SURGERY. By THOMAS BRYANT, F.R.C.S. Third American from the Third London Edition. By JOHN B. ROBERTS, A.M., M.D.

We are happy to announce this new edition of the well-known work of Mr. Bryant. From the preface we learn that much of it has been rewritten and eighty-eight new wood-cuts added. Dr. Roberts has also made various additions, chiefly in regard to the work of American surgeons.

GLEANINGS FROM EXCHANGES.

NEPHRECTOMY BY LUMBAR SECTION.—At a recent meeting of the Hunterian Society Mr. John Couper exhibited a girl from whom last April he had removed the right kidney, which had been converted into a large cyst filled with pus. The patient's illness had begun in 1879, with pain in the right loin, and loss of flesh and strength. She could not lie on the right side without discomfort. On examination, after her admission to hospital on April 17, the following conditions were noted. The abdomen was not over-distended. A more or less solid mass occupied the right iliac and lumbar regions. There was slight visible fullness to the right of and below the umbilicus, but no marked swelling. The liver dulness commenced at the lower border of the sixth rib in front, and extended nearly to the crest of the ilium. On grasping the loins posteriorly there was pain on the right side only. The inguinal glands were not enlarged. There was slight pitting of the legs anteriorly on pressure. Urine was passed from three to four times daily, and contained about one-third of its volume of pus. By an examination under ether it was found that the ascending colon lay in front of the tumor, that deep-seated fluctuation was present in the latter, that its inner edge reached the middle line, its lower edge to one inch above Poupart's ligament, and its upper edge three-quarters of an inch below the margin of the ribs. The tumor did not extend into the pelvis, was movable, and could be tilted from hand to hand. It did not change position on deep inspiration, and was not connected with the liver. There were no symptoms of cystitis; urine acid. Vagina and uterus healthy. The tumor was obviously the right kidney distended with pus. The chronic character of the symptoms, the absence of any tendency to point, and the presence of pus in a healthy bladder, were all against the diagnosis of perinephritic abscess. As regards the prospect of successful nephrectomy, evidence as to the condition of the other

kidney was of vital importance, and here it was noted, 1st, that there had been no vomiting, as if both kidneys were diseased; 2d, that the urine was normal both as to quantity and the percentage of solids contained in it, thus proving that there was no renal insufficiency; 3d, that the amount of albumen present was very small; and, lastly, that the size of the tumor was incompatible with the persistence of any trace of normal secreting structure. The morning temperature was generally normal, and it rarely rose to 102° in the evening. The thoracic organs were healthy, and all these conditions constituted a case exceptionally favorable for nephrectomy, should that operation prove to be necessary. On April 24 the exploratory incision in the right loin was made with the customary precautions against sepsis, the patient being etherized. The section was horizontal, and precisely in the position of that practised in lumbar colotomy. After division of the fascia lumborum, a smooth fluctuating swelling was exposed on the outer border of the quadratus. A trocar plunged into this gave vent to a dark-colored foul-smelling pus in large quantity. Enlarging the opening thus made, and removing the trocar, Mr. Couper passed his forefinger into a loculated sac, obviously the disorganized and dilated kidney. Now arose the question, should this sac simply be drained and allowed to close by granulation, or should it be dissected out? The branching form of the cavity, its enormous extent, and the thick resistant condition of the walls, must have rendered closure by granulation tedious and uncertain. The removal of the kidney was accordingly undertaken. The adhesions of the peritoneum in front were very close, and its separation from the tumor was not effected without a hole being made into the peritoneal cavity. Before this hole could be closed by suture, pus from the kidney contaminated the inner surface of the peritoneum. The ureter was soon reached, tied with strong catgut, and divided. An artery of moderate size below the hilum was ligatured and divided. The main vessels were then tied *en masse* with carbolized silk and divided. The tumor was then quickly detached from its peritoneal connections below the liver and removed. The operation lasted two hours and a quarter, and was throughout all but bloodless. Recovery was uninterrupted. The temperature never reached 102°, and on only three occasions did it exceed 101°. In spite of the fetid character of the pus, the wound did not become septic, and all foul smell was gone in twenty-four hours. For some days after the operation the urine was clouded, and microscopic traces of pus continued to be found in it. These finally disappeared during the third week. The girl left her bed on the thirty-sixth day, and was discharged on the 8th of August. There is still a granulation at the posterior end of the cicatrix, but the girl is rosy and in good health.

POISONING BY PARAFFIN (KEROSENE?).—Mr. Horace Elliott (*Lancet*, vol. ii., 1880, p. 730) reports the case of a child, two years of age, who drank some paraffin. The child was seen about twenty minutes afterwards, and was found to be in a state of semi-collapse, being very pale; the surface of the body was cold and clammy; the pulse small and feeble; the pupils were widely dilated, but acted slightly to the light from a candle. The breath smelt strongly of paraffin. The little patient was dazed and very drowsy, and could only be kept awake with difficulty. Did not cry. The child had vomited slightly before seen, and again soon afterwards. Emetics were administered, which only acted slightly, the vomited matter smelling very strongly of paraffin. The child was not allowed to go to sleep, and about two hours afterwards it began to rally, the surface of the body becoming warmer and the pulse more frequent; the patient cried; there was no diarrhoea. Next morning the child was quite well, the pupils being normal and the breath smelling slightly of paraffin. "From the above notes," says Mr. Elliott, "it will be seen that the symptoms somewhat resembled those of poisoning by belladonna."

ANTISEPTIC TREATMENT OF EMPYEMA.—At a recent meeting of the Manchester Medical Society (*British Med. Jour.*, vol. ii., 1880, p. 744), Dr. Ashby related three cases of empyema treated antiseptically, two of the patients being shown at the meeting. The ages of the patients were two and a half, five, and seven years respectively; all three had a history of five to seven weeks' illness. The treatment consisted in opening the chest under the spray, after the fashion of Hilton's method of opening abscesses,—i.e., making a free incision through the skin of the ninth intercostal space, just in front of the angle of the rib, and pushing a pair of dressing-forceps through the muscles into the pleural cavity, thus avoiding all chance of wounding the diaphragm. Then about half an inch of the ninth rib was excised by a pair of bone-forceps, and a short drainage-tube inserted. The dressings were renewed daily for the first week, but by the end of the first month the discharge had become scanty, and dressing every third or fourth day was sufficient. In two of the cases the discharge had ceased and the wound healed by the end of two months; and in the third in two months and a half. Three months after the operation all three were well. Only one had any deformity of the chest visible to the eye, and that only a slight flattening. The lungs expanded fairly, if not fully.

TREATMENT OF WHOOPING-COUGH IN GAS-WORKS.—A report by M. Henri Roger on this subject made to the Académie de Médecine (*Lancet*, vol. ii., 1880, p. 705) describes the *modus curandi*. The purifying-chamber at the works is a large room, with doors and windows freely open. Each contains twenty-four ves-

sels, holding five cubic metres of depurating substances,—lime and sulphate of iron mixed with sawdust,—through which the gas has to pass. When the workmen are emptying and refilling one of these vessels, the children with whooping-cough are placed around it, and inhale the vapors which escape. They are in an atmosphere containing ammonium sulphide, carbolic acid, and tarry products. The statements made regarding the efficacy of this treatment are the following. M. Commenge records 169 cases in which the treatment was persevered with. In 20 the treatment failed completely, in 48 improvement was obtained, and 101 were cured. M. Bertholle merely states that of 341 cases 122 were improved and 219 were cured. Failures or deaths were not mentioned. M. Roger points out that these results are too good to be satisfactory. He adds that in his opinion the treatment acts only upon one element of whooping-cough,—the catarrh,—and that it is contra-indicated in febrile attacks of the disease and would be positively dangerous in complicated cases. The method is, however, of easy use in some localities and in summer, and seems worthy of further trial in suitable cases, but it is desirable that its effects should be more exactly noted.

URETHRAL IRRIGATOR.—Mr. Harrison (*British Med. Jour.*, vol. ii., 1880, p. 745) says, "If I am correct in my assumption that the urethra, at and posterior to the bulb (excluding of course the prostate), is the seat of the chronic inflammation we call gleet, how utterly inert our treatment of it must be by injections, as usually and popularly practised!" Mr. Harrison directs his patient to sit on the edge of a chair, and introduce a soft catheter, to which is attached a hand-ball syringe, the other end of which is placed in a tumbler containing the fluid to be injected. He steadies the catheter in the urethra with his left hand (not squeezing the meatus around it), and slowly compresses the ball of the syringe with his right hand, the vessel containing the fluid to be injected being placed by his right side. In this way the patient continues to use the apparatus until the urethra is completely washed out. The fluid, after it has circulated between the walls of the urethra and the catheter, escapes through the meatus and is received into any convenient receptacle. This irrigation is repeated twice or thrice daily, the fluid most suitable to the purpose being fifteen grains of sulphocarbonate of zinc in half a pint of water.

HYSTERICAL BLINDNESS, WITH SPASMODIC SQUINT.—Dr. W. Manz (*Brit. Med. Jour.*, October, 1880; from *Cbl. f. Prakt. Augenheilk.*) describes the following case. A nervous young lady, of weak constitution, was suddenly attacked, while the subject of headache, with convergent strabismus, especially of the right eye. At the same time a high degree of amblyopia set in, along with concentric narrow-

ing of the field of vision and spasm of accommodation. Ophthalmoscopic examination revealed nothing beyond a doubtful anomaly of formation, probably due to nerve-fibres with a double contour. The patient had almost completely recovered from the condition above described at the end of eight weeks. While it lasted, clonic convulsions occurred several times. A short time after the patient had been dismissed, a relapse occurred, in which, in addition to the previous symptoms, there was transient anaesthesia of the first and second divisions of the fifth nerve. The relapse disappeared at the end of three weeks, and was after a few days succeeded by a third, which lasted four weeks and left slight impairment of visual acuity with asthenopic troubles.

CHOROIDITIS AS A SEQUEL OF RELAPSING FEVER.—Dr. Julius Trompetter (*British Med. Jour.*, October 30, 1880; from *Klin. Monatsbl. für Augenheilk.*) reports that in three hundred and twenty-five cases of relapsing fever in Breslau, twenty-one cases of choroiditis were observed. They were mostly of the acute form. On admission to hospital, the patients mostly presented the characters of well-marked choroiditis in the form of cyclitis. Very frequently hypopion appeared, in the absence of inflammatory phenomena on the part of the iris. Turbidity of the vitreous humor was ascertained in all the cases, and the visual acuity was always considerably impaired at the commencement of the illness. The field of vision showed a limitation of the periphery in all directions. The course of the choroiditis was in general favorable: its average duration was from a month to six weeks. In two cases both eyes were affected. Dr. Trompetter believes that the affections of the eye in relapsing fever are due to embolism arising from partial necrosis and abscess of the spleen.

DECALCIFIED BONE DRAINAGE-TUBES.—Surgeon Shirley Deakin writes to the *Lancet* (vol. ii., 1880, p. 692) suggesting the decalcified long bones of poultry and small birds as appropriate for drainage-tubes in localities where these cannot conveniently be procured. The bones, well boiled to free them from the soft parts, are soaked for about ten hours in a mixture of one part of hydrochloric acid and two parts of water. Immersed for this time, they become sufficiently soft and flexible for use and to be cut off with ordinary scissors. The ends are now cut off and the medullary cavity cleaned out with a wire. The bone-tubes should then be boiled in a five-per-cent. solution of carbolic acid to which some borax has been added. The tubes are kept in a five-per-cent. solution of carbolic oil.

A SEVERE CASE OF FACIAL NEURALGIA CURED BY A NEW SURGICAL OPERATION.—Dr. Augustus Brown (*British Med. Jour.*, vol. ii., 1880, p. 741), in a case of severe and intractable facial neuralgia, made an incision along the lower border of the jaw and dis-

sected up a flap till he reached the mental foramen. He then ran into the foramen a red-hot steel wire for a quarter of an inch or so, and thoroughly destroyed the nerve. On withdrawing the wire the artery bled considerably, so that he was obliged to plug the foramen. This caused suppuration and some delay in the healing of the wound, which, however, did heal kindly, and the patient from that time has been entirely free from pain and restored to health.

DANGER OF INJECTIONS OF TINCTURE OF IRON IN NÆVUS.—A correspondent of the *British Medical Journal* says, "A child, ten months old, was brought with a small naevus on the right side of its head. I injected five drops of tincture of perchloride of iron with two drops of water. In about a minute the child's face was of a peculiar pea-green color, with black stripes,—the veins. The tip of the syringe had entered a small vein. After four hours' hard work, and with the greatest care, the child's life was saved. Since then I have never used injections for the cure of naevi."

BROMIDROSIS.—Mr. J. W. Martin (*British Med. Jour.*) recommends the following:

R Plumbi acetatis, ʒi;
Aceti destillati, fʒj;
Alcoholis, fʒij;
Aquæ ad Oj.—M.

To be used, after washing the feet with soap and water, night and morning.

TREATMENT OF PROLAPSUS ANI BY HYPODERMIC INJECTIONS OF STRYCHNIA.—Dr. Leonard Weber (*New York Medical Record*, 1880, p. 682) inserts the needle about three-fourths of an inch from the anus, and, directing it upward and parallel to the gut, injects one-twenty-fourth to one-twelfth grain of the remedy, repeating the injection in forty-eight hours.

Three cases were thus treated successfully. In one, a man of forty-five, six injections, of one-twelfth of a grain each, were necessary. In a boy four years old, with a prolapse of a year's duration, four injections, of one-twenty-fourth of a grain each, sufficed for a permanent cure. In a girl of six a similar number of injections cured completely.

SECONDARY EPITHELIOMA OF THE LUNG.—At a recent meeting of the Pathological Society, Mr. Goodlee showed one case where there were numerous tumors in the lungs consecutive to epithelioma of the tongue, and a second case where there was an epitheliomatous nodule of the lung consecutive to epithelioma of the bladder. The epitheliomatous nature of the growth was more marked in the latter than in the former case. In this, however, there was typical secondary epithelioma in the kidneys and supra-renal capsules. The President said he had removed a man's tongue for epithelioma. He had remained well for two years, and had then died with secondary epithelioma of the lung.

THE treatment of *acne rosacea*, or "whisky-

nose," by electrolysis is advocated by Dr. G. S. Mitchell (*Cincinnati Lancet and Clinic*). He reports seven cases cured, or almost so, by this method. He uses fifteen or twenty cells (galvano-faradic cabinet battery). One or both poles of the battery are armed with needle-electrodes, and these are introduced here and there into the dilated vessels. The needles are not allowed to remain more than half a minute in one place, the treatment lasting about five minutes. From eight to twelve séances were sufficient to cure the patients. The operation is painful, though not so much so as to require an anæsthetic.

JOINT-DISEASE IN LOCOMOTOR ATAXIA.—At a recent meeting of the Pathological Society (*British Med. Jour.*, vol. ii., 1880, p. 743) Dr. Payne showed a man who had suffered from syphilis and now presented well-marked symptoms of locomotor ataxia. He had considerably improved under antisyphilitic treatment, but had recently developed hydrarthrosis in the left knee-joint. Gastric symptoms were absent till a week ago, when he had an attack of vomiting, without obvious cause, bringing up clear fluid. Dr. Buzzard had ascertained from the patient that he had been liable for the last three or four years to attacks of retching and vomiting. He had previously called attention to the frequent association of joint-disease with gastric attacks in locomotor ataxia; and since that time he had seen three cases of joint-disease in ataxic patients, two of whom presented also gastric symptoms. He thought the attacks of nausea and vomiting were of some importance from this point of view.

GELOSITIS WITH SUPPURATION IN A SYPHILITIC INFANT.—Dr. Lees, at the same meeting, showed a hereditarily syphilitic baby in whom the left elbow and right knee-joint had become much enlarged, the child being then six weeks old. Both joints had suppurated and had opened spontaneously. The left knee-joint subsequently suppurated and had been aspirated. The child had recovered under mercurial treatment, with a fair degree of movement in all the joints. Noteworthy points were: 1, the multiplicity of the affection; 2, the early age at which the bone disease had occurred; 3, the good recovery under mercurial treatment.

MISCELLANY.

CENTENARIANS.—Dr. J. C. Taché, a prominent official in the Canadian government, made centenarianism a study at the time of the taking of the Dominion census in 1871, submitting the 82 cases reported by the enumerators to the Abbé Tanguay, who obtained from the parish priests and notaries over 1000 acts of registration. Of these 82 reputed centenarians, no less than 73 were proved to be under five score. Of 31 claiming to be

100 years old, 28 were shown to range from 79 to 99; of 9 persons said to be 101, the oldest was found to be 99; of 9 said to be 102, the oldest was 89; of 4 claiming to be 103, the oldest was 95; of 4 claiming to be 104, the oldest was 99; of 7 claiming to be 105, the oldest was 97; of 3 claiming to be 106, the oldest was 98; of 3 claiming to be 108, the oldest was 95; of 3 claiming to be 110, the oldest was 98; while the old inhabitant of 112 was reduced to 81, the claimant of 112 to 91, and the patriarchal François Torgues's 120 years dwindled to precisely 90. There remained 9 admitted cases: three persons were found to be 100 years old, one was 101, one was 102, and two others were 103, while Rosalie Lizotte's claim to 109 was passed, and to Baptiste Joubert's 105 years 8 were added. Of course there is a presumption against two persons having reached the ages of 109 and 113, when of the other seven admitted centenarians only two lived to be 103, and it is quite possible that there have been errors in the records, such as would have arisen from the death of a child at the age of 6 or 8, and the naming of the next one born after it, when almost inevitably the younger child would be given the elder one's age by a searcher coming a century afterwards. But there is a *prima facie* case made out, and the fact is well known that the French Canadians are not less remarkable for their vitality than for their fertility. It is to be hoped that General Francis A. Walker may make as rigid inquisition as is possible into the many hundred cases of centenarianism which will surely be recorded in the census reports, or, if this is not possible, will at least publish a list of the cases, and so facilitate the work of independent investigators.—*The American*, 1880, p. 77.

EIGHTY-THREE GRAINS OF OPIUM vs. ONE-QUARTER OF A GRAIN OF ATROPIA.—Dr. J. W. Bryant reports, in the *Virginia Medical Monthly*, a case of opium-poisoning successfully treated with gr. $\frac{1}{4}$ of atropia. The patient, a man, had taken 3iiss of laudanum on an empty stomach. Two hours passed before anything was done for his relief. Emesis could not be produced, and, as there was no stomach-pump, Dr. Bryant had to rely entirely on atropia. One-fourth of a grain was given hypodermically in four hours in six doses. When it was given, the man had marked symptoms of opium-narcosis,—lightly-contracted pupil, slow and labored respiration, slow and weak pulse. The first perceptible effect of the atropia was after the second dose, when the pupil began to dilate slowly; it was not fully dilated until after the sixth dose. The pulse continued to rise until from 55 it was 125. There was no effect upon the respiratory centres. The galvanic battery was used for a time with no very striking result. At 1 A.M. the patient was left, the physicians not knowing whether he would live or die. Next morning he was awake and con-

scious, but in the condition of a man who had been on a "big spree." Some delirium appeared the next day, but the patient was soon in good condition again. His bowels were not constipated.—*New York Medical Record.*

HOW THE PENNSYLVANIA HOSPITAL IMPRESSES FOREIGNERS.—The *Lancet* for October 23 contains an article from a travelling correspondent in Philadelphia, in which he gives his impressions of the Pennsylvania Hospital. He admires the telephonic communication with each member of the staff and the police headquarters. The excellence of ventilation he finds among the most remarkable features of the hospital. The bedstead carriage and Morton's ward dressing-carriage also struck him favorably. He takes exception to the resident physicians' rooms, one medium-sized apartment being scarcely sufficient accommodation, in his opinion, as the common bedroom and sitting-room of two officers. What he would have said to the state of affairs ten years ago, when the resident's room was made to do duty as a consultation- and gossip-room for the staff, and when fixed wash-stands, in direct and untrapped connection with the sewer, poured their miasma into this same apartment, we cannot say. It was a good room to get typhoid in, like that of the landlady in the old verses:

"In this excellent room died three people of fashion."

We fear the resident physician who acted as guide to the English visitor was a wicked University wag; for, says the correspondent, "I was assured that at Jefferson College, which is one of the leading medical schools in this country, a man might take his degree in medicine and go forth and practise his profession *without having ever seen a case.*"

NEW REMEDY FOR EPILEPSY.—Not an over-nice remedy is magpie dust, which no less a personage than the Princess Bismarck apparently deems an infallible specific for epilepsy, since, no longer ago than January of last year the president of the Eckenfoerder Shooting Club addressed the following circular to the members of that association:

"Her Highness Princess Bismarck wishes to receive before the 18th instant as many magpies as possible, from the burned remains of which an anti-epileptic powder may be manipulated. I permit myself, therefore, high- and well-born sir, to entreat that you will forthwith shoot as many magpies as you can in your preserves, and forward the same to the Chief Forester Lange, at Friedrichsruh or hither, without paying for their carriage, down to the 18th of this month."

VOL. IX. ("Diseases of the Liver and Portal Vein") of Ziemssen's "Cyclopædia of the Practice of Medicine" has been received. It completes the American reprint of this great work. There is still another volume due in Germany. The time of its appearance is so uncertain that the publishers think it wisest to omit it

from the American series, and announce that, upon the issue in Germany of the work on "Diseases of the Skin," which will there form a part of Ziemssen's Cyclopædia, they will at once have it translated and publish it here as an independent volume; and, further, they will present a copy, tastefully and strongly bound in muslin, to every subscriber to Ziemssen's Cyclopædia who has completed his set by that time.

MEDICAL JOURNALS OF THE WORLD.—Of these, France and her colonies possess 147, of which 95 are published in Paris alone. Germany has 129; Austria, 54; Great Britain, 69; Italy, 51; Belgium, 28; Spain, 26; Russia, 26; Holland, 16; Switzerland, 10; Norway and Sweden, 9; Denmark, 5; Portugal, 4; Turkey, 2; Greece, 1. In America 183 journals are said to be published, but this must be an under-estimate. Asia is supplied with 15, while Oceanica boasts 2, which should have a wide circulation. The entire number of medical journals published the world over is 785, most of which live by preying upon each other directly or by bolting the half-digested items obtained at third-hand from the journal in which they were originally "extracted."

ODIUM SCIENTIFICUM.—The calm, cold atmosphere of scientific discussion does not appear to prevent that heated state of feeling formerly supposed to be the peculiar weakness of theologians. At a recent meeting of the Académie de Médecine, Prof. Pasteur's course in keeping secret one of his scientific discoveries was animadverted upon by Prof. Guérin, whereupon Pasteur said, cuttingly, "When, in the name of clinical principles, a man has proposed to aspire up to the surface of wounds by means of an india-rubber cup, some tubes, and a pneumatic pump, he is capable of anything." These personalities nearly ended in a duel, the rumor of which, it is said (owing to the fact that one of the would-be combatants is nearly an octogenarian, and the other hemiplegic), caused some hilarity in the Academy.

BORAX IN HOARSENESS.—This salt has been employed with advantage in cases of hoarseness and aphonia occurring suddenly from the action of cold. The remedy is recommended to singers and orators whose voices suddenly become lost, but which by these means can be recovered almost instantly. A little piece of borax, the size of a pea, is to be slowly dissolved in the mouth ten minutes before singing or speaking. The remedy provokes an abundant secretion of saliva, which moistens the mouth and throat. This local action of the borax should be aided by an equal dose of nitrate of potassium, taken in warm solution before going to bed.—*La France Médicale.*

POISONING BY CHLORATE OF POTASSIUM.—The *Marseilles Médical* relates a case of poisoning by chlorate of potassium. An el-

derly man took, in mistake for Epsom salts, thirty-five grammes of chlorate of potassium. Death, which followed in seven hours after the ingestion of the salt, was preceded by the following symptoms: vomiting, colic, and diarrhoea, general weakness and rigidity of the limbs. After death the skin of the dorsal and lumbar regions presented a slate-colored appearance.

FAILURE OF WICKERSHEIMER'S "PRESERVATIVE FLUID."—The absolute failure of Wickersheimer's solution, so widely quoted as the best preservative of anatomical subjects, appears to be settled. The solution of acetate of alumina is said to be much better, and deserves a thorough test. Burow used a concentrated solution as an injection with such success that after two weeks two cadavers (children) showed no evidences of putrefaction.

GERMAN EYE AND EAR INFIRMARY.—In the year 1880 there were gratuitously treated in the Dispensary of the German Eye and Ear Infirmary (Dr. M. Landesberg, surgeon-in-charge), 441 North Fifth Street, 1190 patients, of which number 829 were for eye diseases and 361 for ear diseases. The number of important operations performed in the institute was 111; of minor ones, 153.

WHAT IS FAME?—Prof. Laboulbène, in a long and interesting lecture on the history of medical journalism, gives the following list of the leading medical periodicals published in America: *The American Journal*, *Boston Medical and Surgical Journal*, the reviews and medical journals of Cincinnati, Indiana (!), New York, etc. etc.

ACCORDING to Mr. D. G. Crain, United States consul at Milan, from 230,000 to 260,000 pounds of quinine are produced in the world yearly, of which 45,000 are manufactured in Italy.

NOTES AND QUERIES.

ACCEPTANCE BY DR. WILLIAM PEPPER OF THE OFFICE OF PROVOST OF THE UNIVERSITY OF PENNSYLVANIA.

TO HON. JOHN WELSH, CHAIRMAN:

DEAR SIR,—I had the honor of receiving to-day a sub-committee, composed of Messrs. Rogers, Merrick, and Mitchell, who informed me of my unanimous election as Provost of the University of Pennsylvania.

They informed me at the same time that the Board of Trustees had made certain modifications in the duties and powers of the Provost, and had also enlarged the disciplinary and supervisory functions of the respective faculties.

While rejoicing at what appears a marked improvement in the organization of the University, I am highly gratified at finding that these changes render it possible for me, while continuing to hold my chair in the medical department, and to pursue the practice of my profession, to accept the important post to which I have been elected.

I shall esteem it the highest honor and privilege to be able to serve the University in this capacity; and I earnestly trust that, with the cordial co-operation of the Board of Trustees and of the various faculties, the general welfare of the institution and the efficiency of its administration may continue unabated.

I have the honor of remaining

Your obedient servant,

WILLIAM PEPPER.

OFFICE OF THE PUBLIC PRINTER,
WASHINGTON, D.C., January 19, 1881.

EDITOR OF THE *Philadelphia Medical Times*:

SIR,—This office is almost daily in receipt of letters from medical men throughout the country asking where they can obtain copies of the "Medical and Surgical History of the War."

To those of the fraternity interested I take this method of informing them that a bill has recently been introduced in Congress which authorizes the Public Printer to reprint from the stereotype plates an edition of fifty thousand copies of each of the four volumes heretofore issued from the Government Printing-Office. The fifth volume is now going through the press. Should the bill become a law, these books will be for gratuitous distribution by Members of Congress. Consequently, those who make timely application can, no doubt, be accommodated.

By giving the above communication a place in your valuable journal you will, I think, confer a favor on the faculty generally.

Yours respectfully,

A. F. CHILDS,
Chief Clerk.

WANTED.

HUMAN EMBRYOS, from the second to the fourth month of development, for microscopical study of developing teeth.

Address Dr. E. T. DARBY,
No. 1513 Walnut Street,
Philadelphia, Pa.

January 19, 1881.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JANUARY 9 TO JANUARY 22, 1881.

BAILY, J. C., MAJOR AND SURGEON.—His leave of absence granted him in S. O. 188, December 13, 1880, Military Division of the Pacific and Department of California, extended one month. S. O. 13, A. G. O., January 18, 1881.

COUES, E., CAPTAIN AND ASSISTANT-SURGEON.—Having reported in person, is assigned to temporary duty in the office of the Medical Director of the Department. S. O. 1, Department of Arizona, January 3, 1881.

MEACHAM, F., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Niagara, N.Y., during absence on leave of Assistant-Surgeon Price. S. O. 6, Department of the East, January 10, 1881.

GIRARD, J. B., CAPTAIN AND ASSISTANT-SURGEON.—To be relieved from duty in Department of Texas, by Commanding General thereof, on receipt of this order, and then to report in person to the Commanding General, Department of Arizona, for assignment to duty. S. O. 14, A. G. O., January 19, 1881.

TAYLOR, B. D., CAPTAIN AND ASSISTANT-SURGEON.—To be relieved from duty in Department of the East, by Commanding General thereof, on receipt of this order, and then to report in person to Commanding General, Department of Texas, for assignment to duty. S. O. 14, c. s., A. G. O.

PRICE, C. E., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for one month and ten days, to take effect on arrival of Assistant-Surgeon Meacham at Fort Niagara, N.Y. S. O. 2, Military Division of the Atlantic, January 10, 1881.

COMEGYS, E. T., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for four months on Surgeon's certificate of disability. S. O. 4, A. G. O., January 7, 1881.

BURTON, H. G., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Now awaiting orders at Boston, Mass. To report in person to the Commanding General, Department of the East, for assignment to temporary duty. S. O. 7, A. G. O., January 11, 1881.